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JAN 18 1916



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W. H. PETER, Pres. & Genl. Mgr. L. E. MITCHELL, Vice Pres. WILTON D. JONES, Secy. & Treas. F. L. HOFFMAN, Eng.



Richards-Wilcox
MANUFACTURING COMPANY
DOOR HANGERS & HARDWARE SPECIALTIES

BRANCHES:
NEW YORK
CHICAGO
PHILADELPHIA
ST. LOUIS
BOSTON

AURORA, ILL.

MAIN OFFICE & WORKS, AURORA, ILLINOIS
ESTABLISHED 1888
"RICHWILCOX"

SLIDING DOOR HANGERS
FOR
PUBLIC BUILDINGS
HOUSES, GARAGES
AUDITORIUM FOLDING DOORS
BARN, WAREHOUSES
ELEVATOR DOORS
SCHOOL HOUSES

AUTOMATIC FIRE DOOR FIXTURES

OVERHEAD TROLLEY
CARRYING SYSTEMS

ROLLING STONE LADDERS
STEEL STORE SHELVING

MOUNTED GRIND STONES
FAMILY GRIND STONES
EMERY GRINDERS

MANUAL TRAINING BENCHES
WOODWORKERS VISES

PIPE AND RATCHET WRENCHES

FOLDING STEERING BLEDs

WAGON JACKS

WIRE FENCE STRETCHERS

AUTO LUGGAGE CARRIERS

SCREEN DOOR CATCHES

SLIDING DOOR LOCKS

DOOR HOLDERS

EXPANSION BOLTS

STAY ROLLERS

CORNER IRONS

FOOT SCRAPPERS

STEEL HATCHETS

To Our Friends,
Everywhere,
Greetings.

This is the season when peace and good will generally prevails, and the sense of fellowship deepens into kindly feelings that find expression in good wishes.

We take this opportunity to extend most cordial and hearty greetings from those comprising our organization to you and your associates.

We are glad to express to you our sincerest appreciation of your loyalty and co-operation which has so largely contributed to our success during the years gone by.

It is our wish that the New Year will bring a large measure of prosperity and happiness to you and yours.

It shall be our aim in the future, as it has been in the past, to render to our patrons the best possible service consistent with good business policy, to merit, if possible, the same favors as we have enjoyed in the past for our mutual good.

Sincerely yours,
Richards-Wilcox Mfg. Co.
President & General Manager.

OUR GOODS ARE ILLUSTRATED IN "SWEETS INDEXED CATALOG" USED BY ALL ARCHITECTS

V. 4-5
1916-1
Pg

JANUARY, 1916

D

Unrealized Advantages of Merit

THERE are certain advantages you receive in goods of merit that are a good deal like **LATENT HEAT**. They are there without being realized. I am going to **FIGURE IT OUT** for you:

If a watch spring is wound, it absorbs as much energy as was needed in winding it, and as it unwinds, it **PAYS' BACK** that energy. But if it is wound, and the temper is taken out of it by fire or acid, then it no longer uncoils. What became of the energy? It was not destroyed; it escaped somewhere unnoticed.

Very rich soil may look like ordinary soil, but the rich soil produces better crops. Also it **RETAINS** a certain amount of its goodness that the farmer does not see. But that **INHERENT MERIT** will produce \$3 more profit an acre each year—or \$300 for 100 acres—or \$3,000 in ten years, simply because the **MERIT WAS PRESENT**.

Merit does not always manifest its presence, but through its presence, it produces **BETTER RESULTS**.

One radiator will keep the temperature of a room at 62 degrees, and another will maintain 68 degrees in the same room, **WITH THE SAME HEAT** in the boiler. There is nothing about the better radiator to **DISCLOSE** its superiority, but there is **MERIT PRESENT**, and the result is greater heat, greater comfort, more health.

Merit often satisfies without indicating **How** or **WHY** it satisfies, but whatever gave that merit, is responsible.

You may buy two classes of food. One kind gave you strength, stamina, health; the other under-nourished you. These foods tasted and looked similar, but one had merit, and the other lacked merit. Maybe the meritorious kind gave you fifteen per cent additional **WORKING POWER**, and paid you \$1 more a day, or \$300 more a year—but you are at a loss when it comes to **TRACING** the steps that set that merit into operation.

Merit is a good deal like **POTENTIAL ENERGY**, that never indicates its presence until it becomes **KINETIC**, or active energy. But neither the energy nor the merit occurs accidentally.

Merit causes one horse to pull a ton fifteen miles, and its lack permits another horse, **THAT LOOKS THE SAME**, to pull only 1,000 pounds ten miles.

Merit produced **TWICE** the results in this instance. Merit often produces **BETTER** than twice the results—but need not make itself apparent or cause you to stop to analyze its reason or admit its presence.



— FOR JANUARY, 1916 —

Full of Good Sense, Good Humor, with a Hunch for R-W Products
Published Once a Month by

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

Officers

W. H. Fitch Pres. & Gen'l Mgr.
Lee Mighell Vice-President
Milton D. Jones Sec'y & Treas.
P. L. Hoffman Superintendent
The Richards-Wilcox Canadian Company, Ltd.

Branches

85 Walker Street New York City
15 East Lake Street Chicago
50 North Sixth Street Philadelphia
132 Pearl Street Boston
1735 Boatmans Bank Building St. Louis
321 Plymouth Building Minneapolis
London, Ontario

✓ 4 D. M. KAGAY, *Editor* w 1

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Trade Friendship

AFTER you have taken inventory you will know just how much money you have tied up in your business — stock, fixtures, book-accounts, etc. If the question of you selling your business should come up, would you be willing to dispose of it for the inventoried value? Hardly — there is a “something,” a difference, between the invoiced value of your business and what you consider it worth to you.

That “something” is the good will, trade friendship, which you have been years in the building, and is worth just what you have made it worth.

So, trade friendship is certainly well worth cultivating.

If a thousand bowls of water were placed out in the sunshine, each one would reflect the image of the sun.

Every patron mirrors back your good will. Each reflection may be only a thousandth part as clear as the original, but it helps others to gain a fair idea of what the original is like. Every patron should be just as much a part of your organization as you, because if their satisfaction, their economy, their good will did not enter into your efforts, they would work against you.

Every time you make a sale you are interested not merely in meeting the desires and needs of your customers, but in reflecting your ability to do your work so that the friends and acquaintances of that customer may also see and appreciate.

On the other hand, if you did not meet the needs and desires and best interests of each customer, then the reflection would be dim. It would be like obscuring the sun with clouds, so that the full power of the sun could not be reflected.

The customer determines your success, because they "speak their mind," and their friends are your prospects.

Trade friendship means more to you than your store and your fixtures, because the store and the fixtures are merely means to an end, and that end is the satisfaction of your patrons. Through your goods, you can serve them better than though they

made them themselves. You *study needs of others*, and therefore meet their needs whether they have realized them or not.

The railroad that is constructed through a region without population would render all of the investment and equipment and road valueless. Having the means at hand to do a certain thing is of small account unless that certain thing is done.

Trade friendship demands *living up to* every requirement because Good Will operates according to definite law. The ball that is thrown against the side of a building will bound back. The harder it is thrown the faster and quicker it will bound. The more thought and attention, honesty and merit you put into the selection of goods and the conducting of your business, the more surely and quickly the trade friendship will bound back to you.

Every time the customer patronizes you, they become an asset to you — and unless your goods and service are assets to them, the transaction is one-sided.

One-sided things never last, they are like having two dimensions, where there must be three.

No argument can explain away their dissatisfaction, it is easier and cheaper for you to be *certain* of satisfying them.

They say how fast and how powerful you become, they are judges, always deciding for or against you.

Neglect of one patron might become a habit — and destructive habits are contrary to business policy.

You should regard them as being right — and when you have met with their approval, you have progressed.

Two viewpoints are always necessary, the chess-players may miss plays that the bystander sees, the customers see things that you cannot see — hence, they aid you to reach toward perfection.

Proclaiming your desire to please your customers is not a mere figure of speech. It should have its foundation in reality. It should depend upon actual performance. Your desire to please them and to serve them is just another way of stating your desire to assist yourself.

The only way you can satisfy them, is to consider that they are always present in every department of your business, watching what you do.

You cannot grow any more than your customers decide you should grow. If you are dependent on all of them, then you are dependent upon each one in proportion.

By admitting your need of them, you hope to always merit their need of you — making the need mutual.

Co-operation does not pause with satisfying *one*, — and no mutuality can exist without Harmony.

No. 428

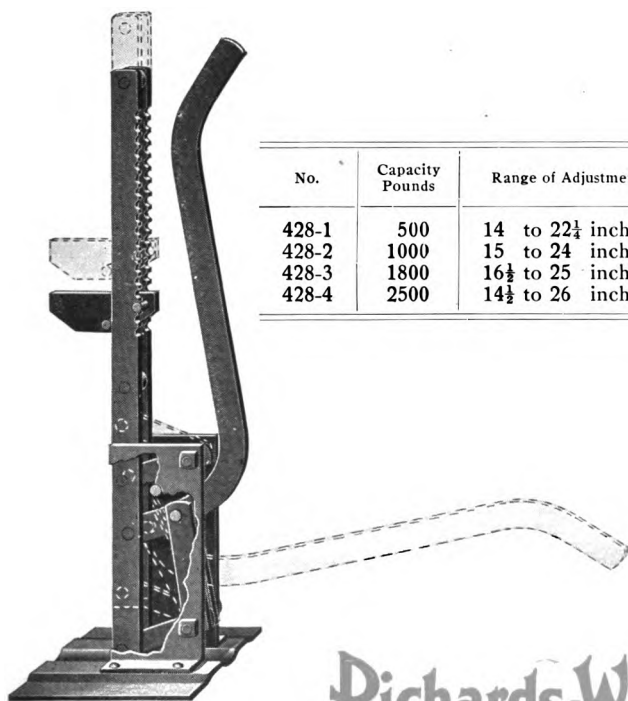
R-W Big Lift Wagon Jack

Made in Four Sizes

An all steel jack. Made in four sizes. Operated by a combination of powerful double acting levers and toggles. Lifts $2\frac{1}{4}$ inches. Adjusts quickly for any height axle. When the handle is down the jack is positively locked.

Finish, japan.

Packed in one dozen and half dozen crates.



No.	Capacity Pounds	Range of Adjustment	Weight per Dozen
428-1	500	14 to $22\frac{1}{4}$ inches	100
428-2	1000	15 to 24 inches	125
428-3	1800	$16\frac{1}{2}$ to 25 inches	215
428-4	2500	$14\frac{1}{2}$ to 26 inches	375

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.



SUCCESSFUL FARMING



BARN DOORS

If you were ever wakened in the night by a barn door flapping in the wind and knew that some of the stock had escaped or that the door would likely be broken from its hinges before morning, there is no argument necessary to convince you that sliding doors have an advantage over those hung by ordinary hinges. Sliding doors can be made very much larger than hinged doors and there is no possibility of sagging, provided good track and rollers are used and they are properly attached. Drifted snow causes but little inconvenience with sliding doors, they cannot blow open or shut, and they take up the minimum of space.

A hinged door standing part way open is a menace to stock. When an animal attempts to pass through from the side on which the door is hung, the door catches against its body and the more the frightened animal attempts to struggle through the tighter it is gripped between the door and casing. A knocked down hip or other serious injury frequently results. This danger can be overcome by the use of a sliding door suspended by a door with a hinge which permits a door to swing out when stock rub against it also prevents it from being torn from track.

A good door can be made of flooring, and by making it double thickness with one thickness running at angles to the other, you will have a door which will not warp. Built up between the two thick rails will make the doors firm when closed.

Some sort of latch or device will prevent the accident of a door fastening to fasten the stall door.

OBSTRUCT



— *clipped*

from recent issue of Successful Farming and presents a very strong case why every barn door should be a sliding door.

Such unsolicited and unbiased recommendation of the sliding door method of hanging barn doors is one big reason why you should sell more of them.

What is good for your trade helps you.

Ask us how we help you.

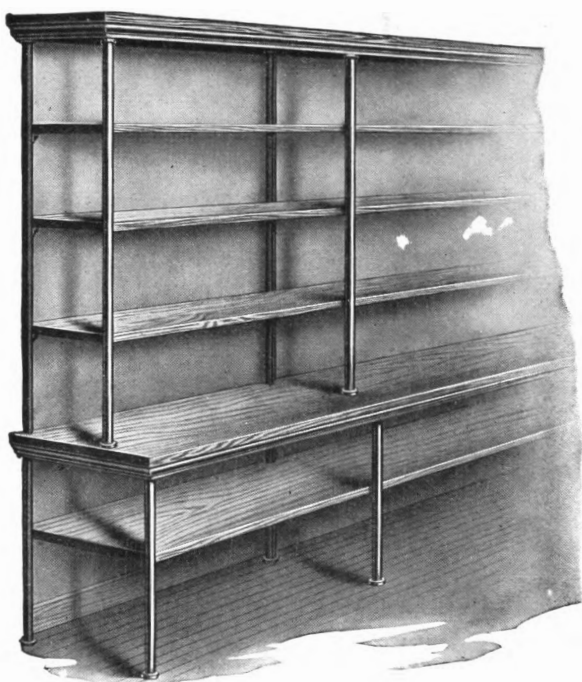
Richards-Wilcox



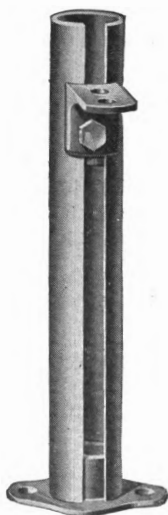
MANUFACTURING Co.

AURORA, ILL. U.S.A.





PATENTED



A well displayed stock
saves your time and your
clerk's time in selling.

No. 629
R-W Tubular Adjustable
Shelving

A simple, economical and
substantial system of unit
shelving. *No space wasted.*

Ask for Particulars

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.



The Advantages and Conveniences of Sliding Doors in the Modern Home

AMONG the many reasons for preferring sliding doors in residences, the most important are:

Saving of Floor and Wall Space, Ease of Compensation for Settlement.

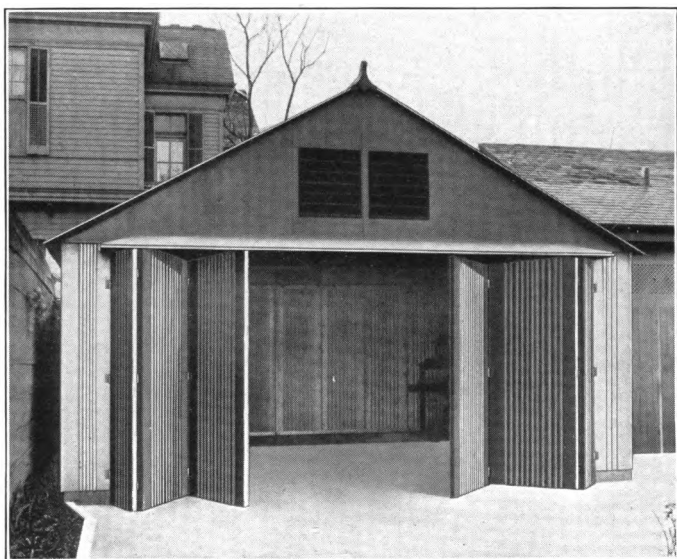
Swinging doors render useless for furniture all floor space covered by the swing and lying back of the hinge jamb. In doors of the usual size this amounts to six square feet. Against this we have the additional thickness of partitions due to the pocket for the sliding door. In a room 12 feet wide this amounts to three square feet, leaving a net gain of three square feet by the use of a sliding door.

In addition to the gain in floor space, we eliminate the three feet of wasted wall behind the swinging door when open.

Every one knows houses settle and that the settlement causes the doors to bind. With hinged doors it becomes necessary to take them off, block or sink the hinges, and dress down the edges. The doors are then out of square and their appearance ruined.

If sliding doors are used, with adjustable hangers, the adjustment is made without muss and in a few minutes' time and the appearance of the doors remains as neat as before.

ONE feature that is overlooked by a great many when building their garage is protection from fire. The main idea of most is protection, all right—protection from the weather and the thief—but the possibility of their garage and their costly automobile being



SHOWING DOOR PART WAY OPEN

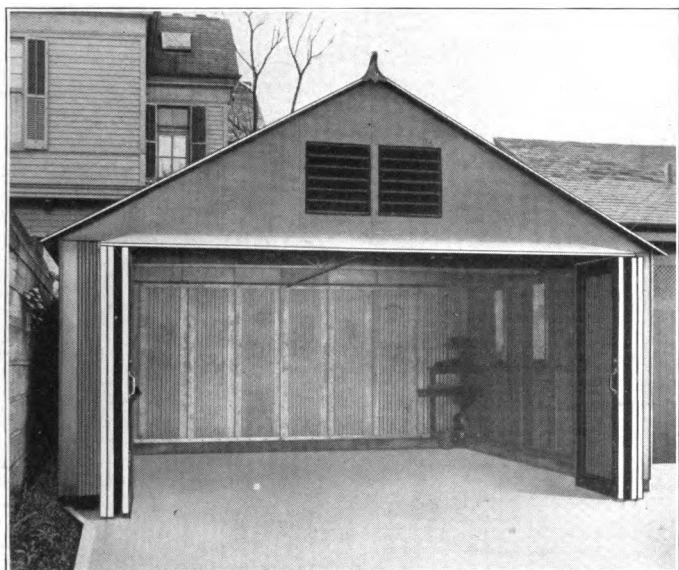
destroyed by fire doesn't always impress them strongly enough.

There is a great variety of materials which can be used in the construction of the private garage which will meet all protection requirements and fit in with the home.

In case it might be desired to move the garage after being erected or it was not desired to go to

the expense of some high priced construction, a metal garage answers every need.

A metal garage fills all the protection necessities — weather, theft, fire.



SHOWING DOORS FOLDED OPEN, GIVING WIDE UNOBSTRUCTED
ENTRANCE FOR CAR

The garage illustrated on these pages is large enough for two or three cars, being 20 x 24 feet in size. The entrance is closed by six sliding, folding doors, these doors measuring 16 feet wide by 8 feet high, approximate weight about 500 pounds. The frames are of galvanized angle iron.

This garage was made by Estate R. G. Holzer, New Orleans, La. Richards-Wilcox sliding door hardware was used.

FREE TO THE HARDWARE TRADE

If you want to sell your store or business.

If you want to buy a store or business.

If you want an employee.

If you want a position.

Send in your ad. Copy can give your name and address or be keyed for answer to come to us for re-mailing to you.

This may be your opportunity.

STORE WANTED—I wish to purchase a hardware stock in town of 5,000 or less, preferably in Ohio, but will consider a place in Indiana or Michigan. Please give price and description of store. Address, T. M. Baxter, Middle Point, Ohio.

POSITION WANTED—As manager of Hardware Store or Hardware Department in the West, on salary or percentage basis if business is located where hardware is used. Have had eleven years' hardware experience. Address, "M. E.," care of "Door-Ways," Richards-Wilcox Mfg. Co., Aurora, Ill.

FOR SALE—Hardware and General Store, fixtures, counters, display tables, show cases, scales, tinner's tools, Meyer's trolley store ladder, coffee mill. Address, Hardware Department, Box 715, Sioux City, Iowa.

FOR SALE—320 acres improved farm, close to town, located in Bowman County, North Dakota; over one-half in crop and half of crop goes with land; will trade for a well located hardware or hardware and furniture stock of about \$6,000 or \$8,000. Submit what you have to offer. Address, O. L. M., Box 109, Ravenna, Nebr.

POSITION WANTED—Thoroughly competent and experienced manager and salesman for retail hardware business would like a position in Eastern Ohio or Western Pennsylvania. Have had years of successful experience. Can furnish A-1 reference. Address, "Pennsylvania," care of "Door-Ways," Richards-Wilcox Mfg. Co., Aurora, Ill.

POSITION WANTED—As traveling salesman for hardware or specialty line. Eight years' experience in hardware. Best of references. Employed at present inside, want outside work. Address, "West," care of "Door-Ways," Aurora, Illinois.

FOR SALE—Hardware, plumbing and heating business in Northeastern Iowa. Good up-to-date stock of about \$5,000. Good town of 1,000; city water and electric lights. Plenty of plumbing and heating work ahead. Address X33, care of "Door-Ways," Aurora, Ill.

FOR SALE—Good, clean stock of general merchandise and hardware, invoice about \$10,000.00; eighteen years good business. Want to devote entire time to manufacturing business. Address, H. Ruwe, Walcott, Iowa.

FOR SALE—Hardware stock, invoice about \$8,000 to \$9,000, in town of 900, Central Minnesota. Located on good corner. Business in hardware \$33,000 annually. Rent very reasonable. Address, J. L. R. & Co., Lock Box, Eden Valley, Minnesota.

FOR SALE—Only Variety Store in town of 1,200. Also tinner's and plumber's stock, tools, etc. Only shop in town. Invoice about \$1,000. Will sell separate or together. Will rent or sell building. Reason for selling, retiring from business. Address, William Weller & Son, Mineral City, Ohio.

FOR SALE—Good, clean stock of hardware, doing good business, old stand, located in the heart of fruit belt in Southern Michigan. Invoice between \$6,000 and \$7,000. Owner wishes to retire. This is a good clean proposition. Cash. No trades. Address, "Michigan," care of "Door-Ways," Aurora, Illinois.

WANTED—Good, live men to sell a new light system. Will give exclusive territory in Minnesota or Northern Iowa. A good proposition and a money-maker for a live man. Write for full information. Address, Peterson Bros., Moorland, Iowa.

WANTED—More ads. for this section. Write us what you need—help, a situation, a buyer or a seller—we'll try and find the need.

WHEN ANSWERING ADS. PLEASE MENTION "DOOR-WAYS"

The Pullman porter stood before the traveling man in an expectant attitude.

"Well, George," said the traveler, "can I give you anything?"

"Whatever your generosity permits, sir," answered the porter.

"Well, boys," replied the traveler, turning to his companions and winking, "let's give the porter three cheers."

.. ..

"Mr. Mower likes you, father," said the young lady.

"Likes me!" he exclaimed.

"Yes, he thinks a great deal of you."

"Well, I have been under the impression for some time that he has liked some one here," remarked the father, "but I've never seen any indication that I was the one."

"Well, you will the very next time you see Mr. Mower."

"How will he show it?"

"He's going to ask if you will consent to be his father-in-law," whispered the beautiful girl.

.. ..

The lovely girl having lingered a minute in her room to adjust her transformation, change the angle of her Grecian band and make sure that her skirt fitted like the peeling of a plum, descended to the parlor to find the family pet ensconced upon the knee of the young man caller, her curly head nestled comfortably against his shoulder.

"Why, Mabel!" the young lady exclaimed; "aren't you ashamed of yourself? Get right down."

"Sha'n't do it," retorted the child. "I got here first."

.. ..

'Tis a very good world we live in,
To lend, to spend, or to give in;
But to beg or to borrow, or ask for one's own,
'Tis the very worst world that ever was known.

.. ..

THE MAIN DIFFERENCE

Willie—"Paw, what is the difference between genius and talent?"

Paw—"Talent gets paid every Saturday night, my son."

.. ..

"I don't know what to give Lizzie for a Christmas present," one chorus girl is reported to have said to her mate while discussing the gift to be made to a third.

"Give her a book," suggested the other.

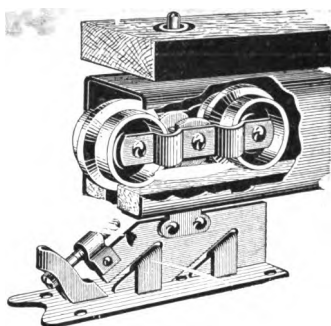
And the first one replied meditatively: "No, she's got a book."

.. ..

The teacher had been trying to explain the law of gravitation to the juvenile class.

"Now, Morris," she said, "can you tell me why it is impossible for you to lift yourself up by your bootstraps?"

"Yes, ma'am," answered the young scientist, "it's because I wear shoes."



"Every
Hanger
a Car."

The verdict of the jury—
composed of thousands of
users, for many years, of

Richards-Wilcox Products

is very strongly evidenced
in the most convincing
and substantial way—
an increased patronage.

Get in the R-W Band
Wagon for 1916

Richards-Wilcox

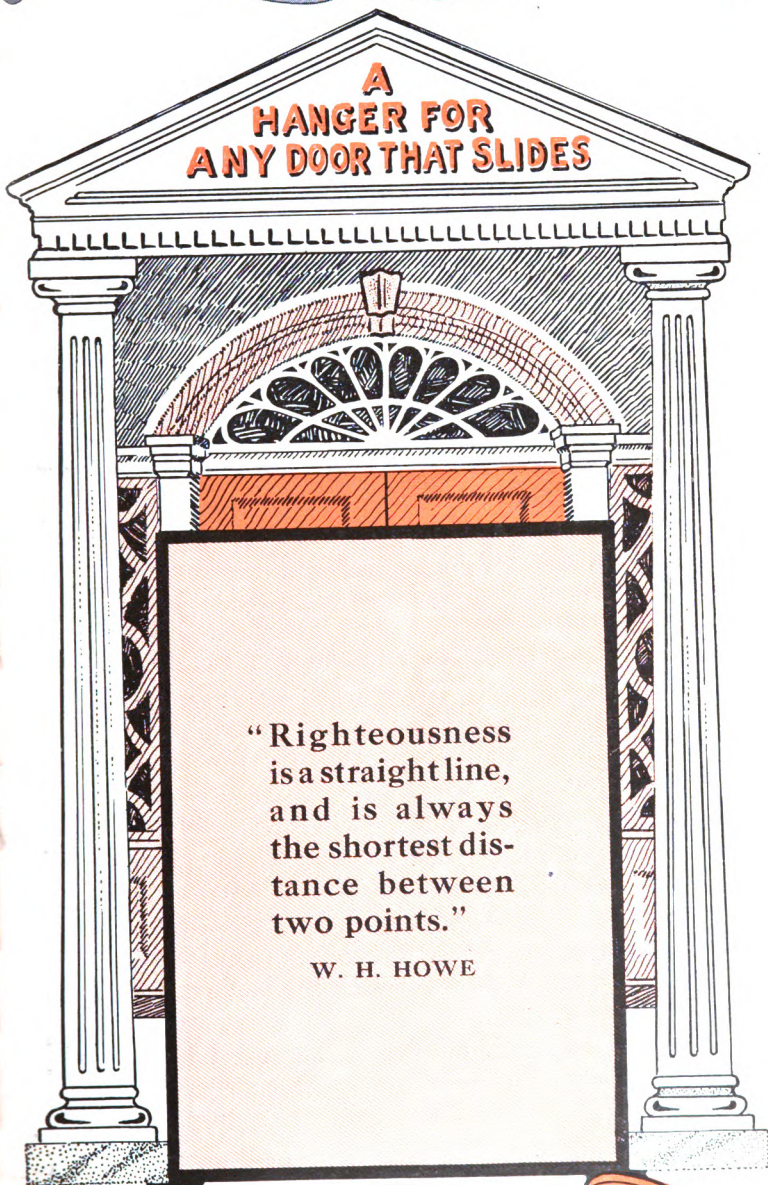


MANUFACTURING CO.
AURORA, ILL. U.S.A.





**A
HANGER FOR
ANY DOOR THAT SLIDES**



“Righteousness
is a straight line,
and is always
the shortest dis-
tance between
two points.”

W. H. HOWE

FEBRUARY, 1916

Everybody Is My Friend

EVERYBODY is willing — anxious — to do things for me, because I am as willing and anxious to make them want to. Everybody responds to the *right* sort of thought, influence and consideration — all of which I am glad to give as compensation for what is done for me; before it is done. Everybody is my friend.

Desire to help others is as much natural law as gravitation, and is as forceful as electricity. Like electricity, it has its positive and its negative. If I receive only negative consideration, that is the kind I attracted. The secret is not in other persons, but in me. I generate and attract as I generate.

Everybody is my friend, because it is part of my day's duty to attract friendship. I can't conceal the purpose of my thoughts. My mind uses every move, every word, everything in every one of my actions as a medium to reveal itself.

My friendship-producing thought starts inside — and it radiates outward. Hence, I am not surprised that everybody is my friend. That is as I intended it should be.

Everybody is friendly to me because I generate confidence — partly through my enthusiasm, and partly through my earnest ambition to *succeed*.

My batteries can be charged up to the brim, and they can be kept charged with ambition, determination and honesty.

The heavier their charge, the more friendship-building power I can give out — even to those who greet me with the inclination to be unfriendly.

Everybody is my friend, because I believe in everybody, — want to see everybody prove trustworthiness.

I regard friendship as a result — and myself as a cause.



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✓ 4 D. M. KAGAY, Editor

Assay Purchasing Needs

THE mining man does not depend upon his judgment in determining the value of the ore he finds. He may have a very excellent idea of what that ore is worth, but it is necessary for him to be ACCURATE, and to *not* depend on estimates. The *assayer* subjects the ore to various *tests*, and determines how much of each kind of metal it contains on the average basis of a ton. No matter how much a mine produces, it makes its assays *every day*, because those assays prove which ore is *profitable* and approximately how much profit may be gained in mining and milling it.

The customers who come into your store have the same relationship to the success of *your employer* that the ore has to the success of the mining company.

The only thing that may be *apparent* in looking at the ore, is the iron it contains; and yet the iron

may have no real commercial value. The assay reveals the *true facts*. The customer who comes to you to buy some small article would seem to be in need of nothing but that article. If you *gauge the purchasing power* of that customer by what he *buys*, then you are confining your sales results to the voluntary demands placed upon you.

Part of the idea of your shelves and floor is to *display* various goods that you have for sale. This display of wares SUGGESTS certain purchases that the customer had not contemplated previously. But *not one* of these articles possesses the power of salesmanship — not one of them can *argue* with the customer. This part of the transaction is left to *you*.

If six customers were waiting for you to serve them, then it would be sound business policy to wait on them and to meet their needs as rapidly as possible. It would be poor policy to keep four or five of them waiting while you tried to make a large sale to the first or second customer. But there are times when the individual customer can be *assayed* and can be made to produce larger business. There are times when the individual customer has both the disposition and the time, and is WILLING to listen to your sales arguments relative to some goods that he has not inquired for and has not indicated he is ready to buy.

Many a house-wife is *anxious* to purchase a new range, but avoids very carefully any mention of a range while she is buying a kettle or a pan. She has decided to wait until such time as she feels she can afford the larger purchase. She may even hesitate to *look* at the ranges, or to inquire about them, for fear she will be talked into a sale. But

remember that some *competitor* may get hold of her when she is in the right mood, and may make the sale that you have *neglected* to make because *you have not assayed her purchasing inclinations* and her needs.

When the assayer makes his analysis of ore, he depends on weight, on tests by heat and on tests by acids. The store in which you work is not simply a merchandizing market, but it is also a *laboratory of these sales-assaying tests*. Your DISPLAY OF GOODS offers one source of making the test. It is easy enough to suggest an inspection of different goods on your counters, your floors or your shelves. It is just as easy to explain the *staple* article as it is to demonstrate something entirely new.

All of the goods in your store represent *tied-up capital*. Your employer experiences no value out of *owning* them, but he does experience a steady loss through *inactive capital* and overhead.

The man who rushes in to buy a pound of nails is in no mood to submit to your efforts to make sales of other goods to him. But the man who evinces a disposition to examine tools of various kinds, may be *actually willing to buy more* than the hammer or the saw that he purchases. He may NEED innumerable other articles and require nothing more than the *right sort of suggestion* to make the purchase.

The housewife who has inquired about a refrigerator or a fireless cooker or an ice cream freezer, without purchasing, has given you the *best indication* that you could possibly hope to have that she is in the market for goods of that class. You make

notations in writing of that person's name and address, and what he or she asks for, and the next time that person comes into the store, you approach him or her on the subject of that purchase. *You keep a careful record of these sales inclinations that are given you from time to time.* Bear in mind that the person who has inquired about a thing is INCLINED TO BUY that article, and if the sale is not made in *your store*, it may be made in the store up the street.

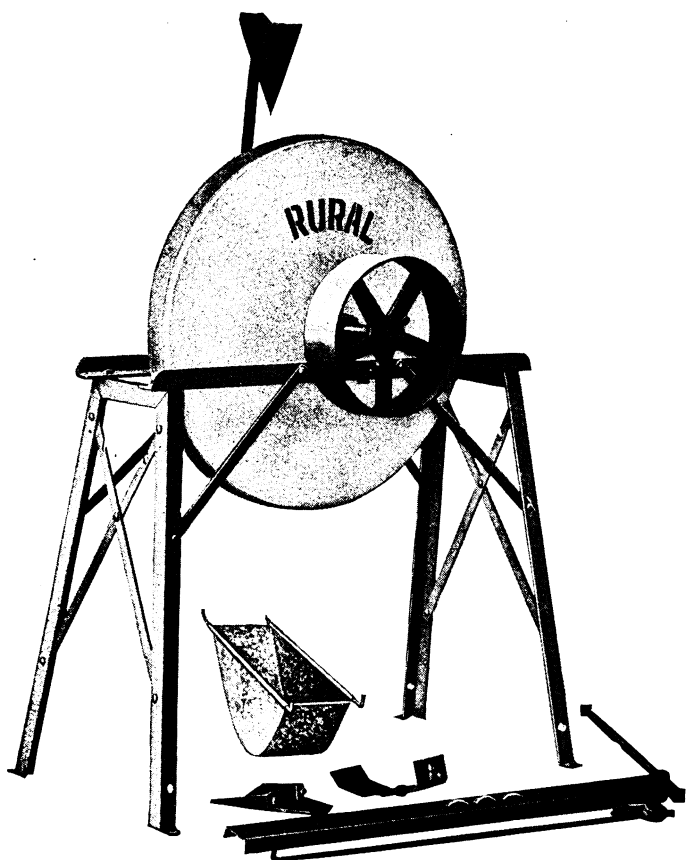
The farmer who comes in to purchase a shovel, a pick-axe or nails, may be ready to buy R-W Door Hangers. The subject of doors may not be in his mind at the moment. A SUGGESTION may make a sale *then and there*, or a sale within the next few weeks.

The people who are building, the people who are making alterations, and those who seem perfectly satisfied with what they have — *are all possible purchasers.*

The great plan back of modern business, and, indeed, the very *foundation* of modern salesmanship, is to ASSAY THE BUYING NEEDS OF THE PUBLIC, and to not wait for the voluntary purchases that may be made later and that may never be made at all, or that may go to a competitor.

ASSAY THE BUYING POWER AND THE NEEDS OF YOUR CUSTOMERS. Consider the *individual*, and *keep in touch* with that individual. Try to make every customer of your store CENTER all of his or her buying needs in *your store*.

Become an assayer of buying power and you will become *a successful salesman and a good business man.*



No. 015

R-W Rural Power Grindstone

The frame is of $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{16}$ -inch angle iron, rigid and well braced. It stands $27\frac{1}{2}$ inches high, 30 inches long and 19 inches wide on the floor.

Self-aligning bearings; shaft $\frac{5}{8}$ -inch diameter. Pulley 12 inches by $2\frac{3}{8}$ inches. Berea Grit stone, 22 inches by 2 inches.

Pulley, hand crank and drip cup regular.

Extras — Galvanized iron water pan with supporting rods, adjustable tool rest and drip tray, all-steel foot pedal, pedal rod and short crank.

Finish — Red, black trimmings. Weight, regular, 115 pounds; complete, 127 pounds.

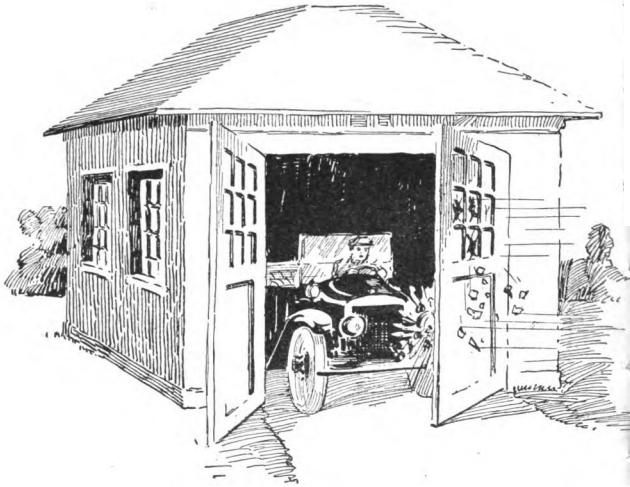
Ask about this repeater.

"A
Grindstone
for
Every
Purpose"

Richards-Wilcox
MANUFACTURING CO.
AURORA, ILL. U.S.A.

"A
Hanger for
Any Door
that
Slides"

Wh



Garage with swing doors. Car coming out—door swings shut and bends fender, breaks head-light, breaks glass in door.

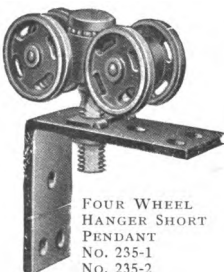


Costs No Saves R

You can save your friends
first for them and lasting satisfi
and greater convenience in equ

R-W Right Angle

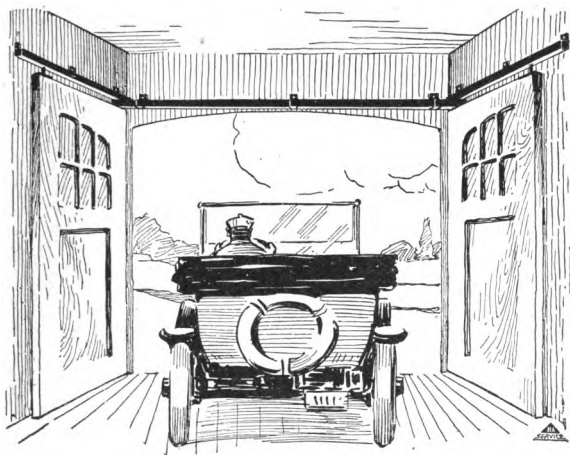
Designed to use where, for
necessary. As shown above, t
above the opening. This requ
an extra long pendant. Track
way through at point where pe
when door is in closed position.
furnished with each order.



FOUR WHEEL
HANGER SHORT
PENDANT
No. 235-1
No. 235-2

Send for your copy
Catalog and Lockin

ich?



Garage with No. 235 outfit. Doors opened on both sides.
Car going out showing plenty of room on both sides
of car. No danger of door injuring car.
R-W RIGHT ANGLE DOOR OUTFIT

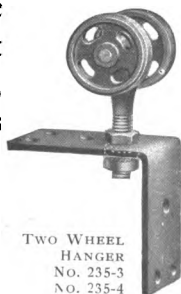
More and Repair Bills

and customers money, insure safety
ction by showing them the economy
pping their garages with

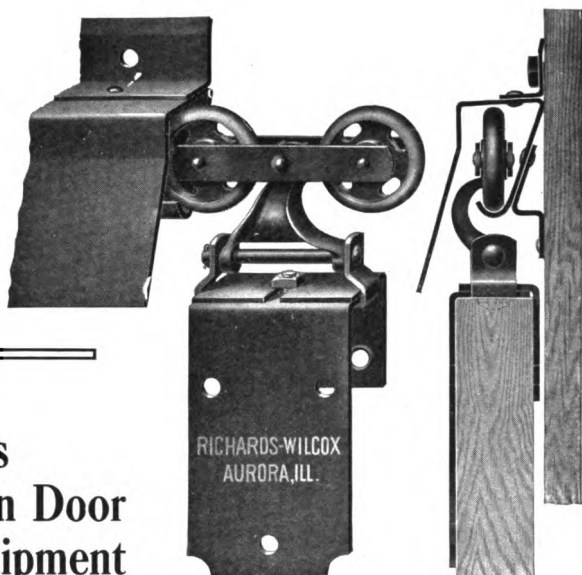
Garage Door Outfits

lack of room, right angle doors are
rack on side wall is set over track
res that the outer end hanger have
over opening must be slotted part
ndant of rear hanger on door comes,
Blue print showing erection details

Garage Door Equipment
Garage Door Booklet



TWO WHEEL
HANGER
No. 235-3
No. 235-4



**This
Barn Door
Equipment
Enables**

**You To Meet Any Competition
On This Style Hanger —**

**No. 799
R-W Selmore Trolley
Door Hanger**

Track, No. 1 size 16, No. 2 size 14 gauge steel. No. 695 type furnished in 4, 6, 8 and 10-foot lengths. Track fits tight against the building (see sectional view of hanger). The outside of track extends below top of door, making same weather and bird-proof. Top of track is inclined away from building, allowing it to shed water.

Hanger, wheels, gray iron, lathe turned. No. 1 size $2\frac{1}{4}$ inches, No. 2 size 3 inches diameter. Bearings, steel rollers. Finish, black enamel or galvanized. Adjustment, lateral only. Flexible joint. Apron, hinged 6 inches long, $3\frac{1}{2}$ inches wide, $\frac{1}{8}$ inch thick, punches for $\frac{5}{16}$ -inch bolts. For doors $1\frac{3}{4}$ to 2 inches thick.

Richards-Wilcox



**MANUFACTURING CO.
AURORA, ILL. U.S.A.**



**"A
Hanger
for Any
Door
that
Slides"**

“I. G. Natz,” said the HEAD DRAFTSMAN to the MEEK and LOWLY PENCIL PUSHER, “don’t you know better than to put a swinging door into that servants’ bed-room? It’s small enough now, but when they get a bed in there they’ll find no room for Bridget’s trunk. Put a SLIDING DOOR in there, Ignatz.

“In this pantry here, is where they will put the ice box, and how are they going to put it there when you swing the door there, heh? Well, who said to swing it the other way? Make it a SLIDING DOOR.

“Here’s another place — If you look in the specifications you’ll find that the dining room has white trim and mahogany doors, while the room opening off it is treated in rough cypress. Now what in SAM HILL would that cypress trimmed room look like if you swung a polished mahogany door into it? Better make it a SLIDING DOOR with each side to match the room it is in.”

Whereupon the MEEK and LOWLY PENCIL PUSHER took to mind the lesson taught him and became a real ARCHITECT who never forgot to specify R-W Door Hangers.

Submitted by



HABIT is a something which a person acquires, somehow, and which they find more or less hard to break, according to the habit. The Thiede-Mueller Hardware Co., of Fort Dodge, Iowa, wished the buying public in their town to acquire the habit of buying at their store — to come in and get acquainted — especially as they moved into a new home.

On the day of the opening, business was suspended at noon and the rest of that day devoted to meeting and entertaining the public.

During the hours of 1:30 to 9:00 o'clock approximately 4,000 to 5,000 people passed through the store. Each lady was presented with a useful souvenir



INTERIOR VIEW

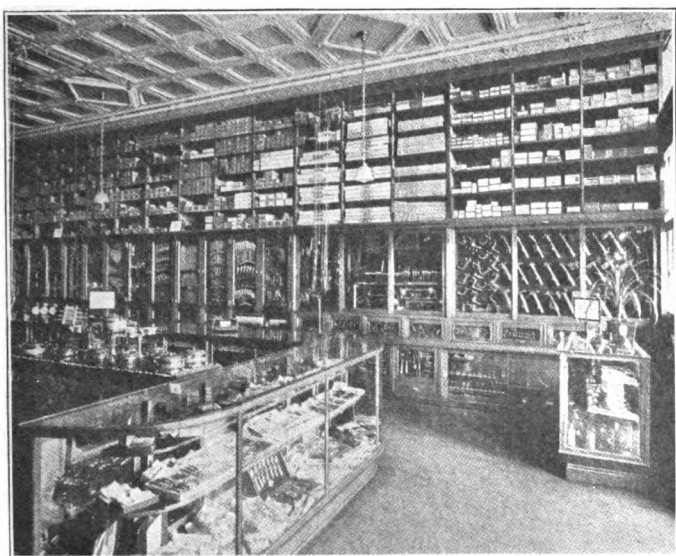
in the form of a combined match safe salt and pepper shaker. In addition, a rose was given to all grown people.

The younger generation was also remembered, as this firm thoroughly believes in making friends of the children. For their benefit a \$40.00 automobile was given away. One thousand rattles were also handed out to the youngsters, and the streets were certainly alive with them. In the evening at 8:30 o'clock when the drawing of the automobile took place the street was jammed by the crowd of people.

An orchestra dispensed music during the afternoon and evening for the entertainment of the public. After closing, all present adjourned to the Crawford Hotel where a banquet finished an enjoyable day.

The Thiede-Mueller Hardware Company was organized in 1909 and are successors to Harry S. Vincent, who is still a member of the firm. In July of that year Mr. Vincent sold part of his interest to several of the boys who had been associated with him. The present members of the firm are Harry S. Vincent, Frank J. Thiede, Will F. Mueller and Bruno F. Thiede.

Their business grew, and the old quarters became too small. Arrangements were made, and last year they moved into their present quarters. This building is 140 x 30 feet, three-story and basement. They also have a warehouse situated on one of the railroad tracks for storage of stoves and heavy goods.



INTERIOR VIEW

The arrangement of the store was planned with the idea of displaying every article possible except the most staple goods, to handle a maximum amount of business with a minimum amount of labor, and to concentrate the different departments as much as possible. Practically all of the goods are displayed either in floor show cases, wall show cases, tables or stands.

Each article displayed carries a serial number and price tag, so the customer can practically sell himself.

A five-station cash carrier saves time.

R-W Products are sold to the satisfaction of all concerned.

FREE TO THE HARDWARE TRADE

If you want to sell your store or business.

If you want to buy a store or business.

If you want an employee.

If you want a position.

Send in your ad. Copy can give your name and address or be keyed for answer to come to us for re-mailing to you.

This may be your opportunity.

POSITION WANTED—As manager of Hardware Store or large Department, preferably Sporting Goods, Cutlery or Stoves. Salary or percentage basis. Have had eight years' experience. Best of references. Address, R. H. S., 530 Prospect Ave., El Paso, Texas.

POSITION WANTED—As compiler of General Hardware Catalogs, also Specialty Departments of Hardware. I am an expert, having had seven years' compiling experience. Location matter of indifference. Best references furnished. Address, R. H. S., 530 Prospect Ave., El Paso, Texas.

FOR IMMEDIATE SALE—One complete structural steel and light metal working shop, located on switches of Iron Mountain & Frisco R. R. Has ample grounds. Building new, of steel construction, supported free of post, 40x75 ft. Business located in wholesale district and near passenger depot and street car line. Address, "Mo," care "Door-Ways," Aurora, Ill.

FOR SALE—General Hardware and Tin Shop, in small town in best farming district of Northern Indiana, on New York Central R. R. Fine opening. Administrator must sell on account of death of owner. Address, J. E. McMeans, Brimfield, Indiana.

FOR SALE OR EXCHANGE—Hardware, Furniture and Coal business, located in best farming section of Nebraska. About \$7,000.00 stock and fixtures, \$4,000.00 store building, warehouse and coal sheds. Sales 1914, \$22,000.00. Will consider land or income property. Address, Lock Box No. 6, Verdon, Nebr.

POSITION WANTED—As manager of Hardware Store or Hardware Department in the West, on salary or percentage basis if business is located where hardware is used. Have had eleven years' hardware experience. Address, "M. E.," care of "Door-Ways," Richards-Wilcox Mfg. Co., Aurora, Ill.

FOR SALE—Hardware and General Store, fixtures, counters, display tables, show cases, scales, tinners' tools, Meyer's trolley store ladder, coffee mill. Address, Hardware Department, Box 715, Sioux City, Iowa.

FOR SALE—320 acres improved farm, close to town, located in Bowman County, North Dakota; over one-half in crop and half of crop goes with land; will trade for a well located hardware or hardware and furniture stock of about \$6,000 or \$8,000. Submit what you have to offer. Address, O. L. M., Box 109, Ravenna, Nebr.

POSITION WANTED—Thoroughly competent and experienced manager and salesman for retail hardware business would like a position in Eastern Ohio or Western Pennsylvania. Have had years of successful experience. Can furnish A-1 reference. Address, "Pennsylvania," care of "Door-Ways," Richards-Wilcox Mfg. Co., Aurora, Ill.

POSITION WANTED—As traveling salesman for hardware or specialty line. Eight years' experience in hardware. Best of references. Employed at present inside, want outside work. Address, "West," care of "Door-Ways," Aurora, Ill.

FOR SALE—Hardware, plumbing and heating business in Northeastern Iowa. Good up-to-date stock of about \$5,000. Good town of 1,000; city water and electric lights. Plenty of plumbing and heating work ahead. Address X33, care of "Door-Ways," Aurora, Ill.

FOR SALE—Good, clean stock of general merchandise and hardware, invoice about \$10,000.00; eighteen years good business. Want to devote entire time to manufacturing business. Address, H. Ruwe, Walcott, Iowa.

FOR SALE—Hardware stock, invoice about \$8,000 to \$9,000, in town of 900, Central Minnesota. Located on good corner. Business in hardware \$33,000 annually. Rent very reasonable. Address, J. L. R. & Co., Lock Box, Eden Valley, Minn.

FOR SALE—Only Variety Store in town of 1,200. Also tinner's and plumber's stock, tools, etc. Only shop in town. Invoice about \$1,000. Will sell separate or together. Will rent or sell building. Reasons for selling, retiring from business. Address, William Weller & Son, Mineral City, Ohio.

FOR SALE—Good, clean stock of hardware, doing good business, old stand, located in the heart of fruit belt in Southern Michigan. Invoice between \$6,000 and \$7,000. Owner wishes to retire. This is a good, clean proposition. Cash. No trades. Address, "Michigan," care of "Door-Ways," Aurora, Illinois.

WANTED—Good, live men to sell a new light system. Will give exclusive territory in Minnesota or Northern Iowa. A good proposition and a money-maker for a live man. Write for full information. Address, Peterson Bros., Moorland, Iowa.

WANTED—More ads. for this section. Write us what you need—help, a situation, a buyer or a seller—we'll try and find the need.

WHEN ANSWERING ADS, PLEASE MENTION "DOORWAYS"

HOW IT HAPPENED

"How did the accident happen?" asked the Sympathetic Friend.

"Well, I'll tell you," replied the Man on Crutches. "The automobile was going pretty fast and all of a sudden we struck a wet place on the asphalt and there was a noise and the Doctor said: "He'll be able to go around in about four weeks."

* * *

Wife—"Harry, do you love your lamb?"

Harry—"Yes."

Wife—"Very much?"

Harry—"Oh, yes."

Wife—"Will you always love me?"

Harry—"Yes. Say, you woman, what have you gone and ordered sent home now?"

* * *

DESTINED

"I belave," declared the Irishman, "that me youngest son's born t' be a surgeon."

"Phwat leads y' to say that?" asked his friend.

"Oi caught him usin' the scissors on a book Oi'd lately bought, and before Oi c'd stop him he cut out the appindix."

* * *

PROVING IT

"That clerk is asleep all the time."

"Well, I said in my reference that he had a very retiring disposition."

* * *

He's a stingy man who won't even give you a pleasant look.

* * *

"I may not be a king," said the derby hat, "but I at least wear a crown."

And then the band played.

* * *

Applicant for Position—"I have here a letter of recommendation from my minister."

Head of Firm—"That's very good so far as it goes, but we won't need your services on Sundays. Have you any references from anybody who knows you the other six days of the week?"

* * *

Her Father—"You expect me to support Margaret indefinitely?"

Her Husband—"Well, I hope you may stand from under very gradually, sir."

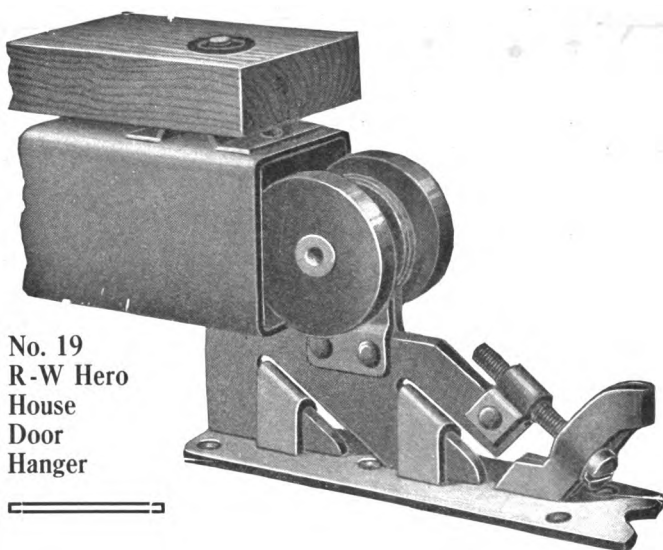
* * *

"Why do you want to get a divorce?"

"Because I am married."

* * *

"No fellow tells a girl he is unworthy of her if he has any suspicion she is going to agree with him."



No. 19
R-W Hero
House
Door
Hanger

A most popular trolley for
homes of moderate cost
is the

No. 19
R-W Hero Ball-Bearing House
Door Hanger

The vulcanized fibre wheels
run noiselessly in the track,
the ball bearings insuring
ease of operation.

Ask About Them

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.





March

Quality Is a Genuine Cash Discount

GETTING a liberal cash discount when a purchase is made, is not nearly so important as getting **THE GREATEST SERVICE** out of what is bought. **QUALITY** discounts the actual cost by returning the **MOST** for the money paid.

You don't want cheap goods that will "tide over" today's need, no matter how much you **SEEM** to "save" any more than you want a roof that will protect you from today's shower, but that will leak when a heavy rain comes on. You want **CONTINUOUS VALUE** — even though the price seems excessive compared with the prices of cheaper goods.

Quality in goods is like using the best reinforced concrete in a dam, or the best steel in a building or a bridge, or the best seed in agriculture.

Cheapness may mean "getting something off for cash," but it also means **LESS USEFULNESS — LESS DURABILITY — WASTE INSTEAD OF ECONOMY.**

QUALITY DISCOUNTS PRICE BECAUSE IT LESSENS ACTUAL COST. It is the **GREATEST** of all discounts.

It serves you better — and therefore pays back its cost in convenience. It lasts longer, and thereby pays back several times its price in **DURABILITY.** It serves its purpose better, and therefore **ALWAYS SATISFIES,** — which is like paying dividends on the original investment.

QUALITY offers no bargains so far as original price or large discounts go, but it pays best because it **MEETS THE PURPOSE** for which it is intended.

Goods that are "marked down" are usually goods that have not done what was claimed for them, and if they are costly at their original price, they are costly at **ANY** price.

The seeming economy of **GETTING SOMETHING OFF FOR CASH** is generally the greatest extravagance. Money is never saved in any purchase unless it buys **QUALITY** that will **FULFILL** that purpose.

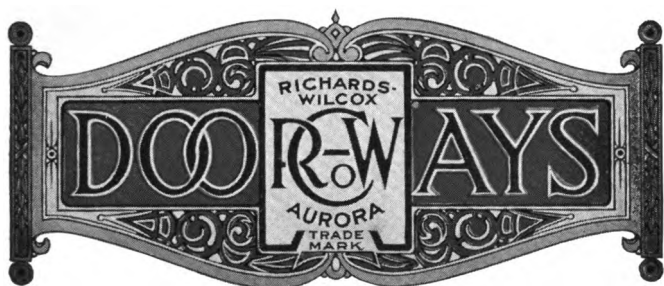
Quality is like a fine residence section, and cheapness is like a tenement district. Quality **BUILDS UP** and cheapness **TEARS DOWN.**

Quality in goods is the same as **SUCCESS** in business. Cheapness is the same as **FAILURE.**

QUALITY PAYS. CHEAPNESS COSTS.

QUALITY EARNS. CHEAPNESS LEAVES A DEFICIT.

QUALITY MAKES GOOD. CHEAPNESS DISAPPOINTS.



—FOR MARCH, 1916—

Full of Good Sense, Good Humor, with a Hunch for R-W Products
Published Once a Month by

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

Officers

W. H. Fitch Pres. & Gen'l Mgr.
Lee Mighell Vice-President
Milton D. Jones Sec'y & Treas.
P. L. Hoffman Superintendent
The Richards-Wilcox Canadian Company, Ltd.

Branches

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15 East Lake Street Chicago
50 North Sixth Street Philadelphia
132 Pearl Street Boston
1735 Boatmans Bank Building St. Louis
321 Plymouth Building Minneapolis
London, Ontario

v. 4

D. M. KAGAY, Editor

~ 3

Hanging Garage Doors

No. 435 R-W Sliding, Folding
Garage Door Outfits

THE 1915 output of the automobile companies totaled thousands of cars. They predict a greater output for 1916. All of these cars must be housed, kept under cover part of the time, in private or public garages. This means that thousands of garages will be built, and as these cars are sold all over the country the requirements for garage door hardware will be widespread.



GARAGE EQUIPPED WITH SIX DOOR OUTFIT, OPENING 18 FEET WIDE
DR. J. W. DRYER, OWNER; JOHN ARMBRUSTER, CONTRACTOR

The popular No. 435 R-W Sliding Folding Door Equipment will be described in detail in this article. This No. 435 R-W Sliding Folding Outfit is not recommended for doors over 3 feet in width.

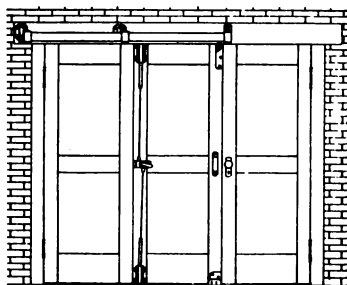


FIG. 1—THREE DOOR OUTFIT

Fig. 1 illustrates the three door arrangement, an excellent outfit for openings up to 9 feet wide. Provides an entrance door which can be hinged to the jamb, as shown, or to the middle door, when it folds back to the side with the other two doors.

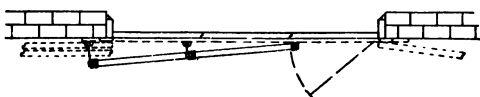


FIG. 2—FLOOR PLAN, THREE DOOR OUTFIT

Fig. 2 illustrates how the doors slide and fold, clearing the opening.

Figs. 3, 4 and 7 illustrate the three brackets needed with each pair or trio of doors. These brackets are adjustable, both lateral and vertical,

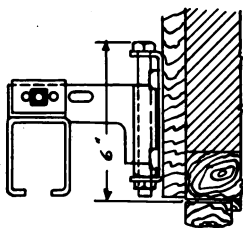


FIG. 3—No. 435-C CENTER BRACKET, SHOWING ARRANGEMENT OF HANGER FOR FOUR DOORS.

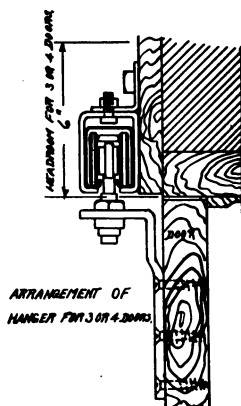


FIG. 4—No. 435-I INTERMEDIATE BRACKET

so that the trolley track can be placed at the proper distance from the wall and at the proper height to accommodate a three, four, five or six door outfit, as required.

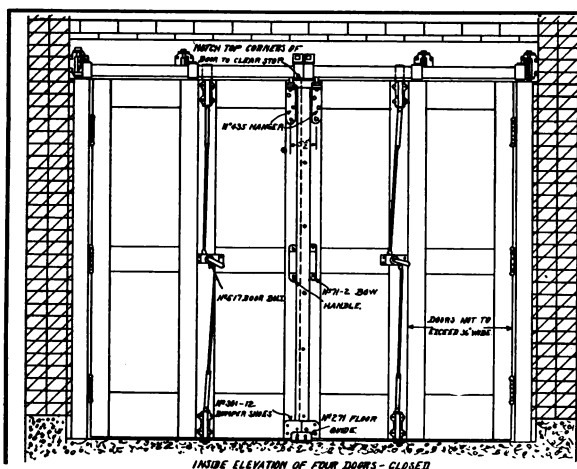


FIG. 5—FOUR DOOR OUTFIT

Figs. 5 and 6 illustrate the four door arrangement. This is the outfit most generally used. The doors are hinged together in pairs and slide and fold right and left. The doors on these outfits will stand at any angle with the wall, depending, how-

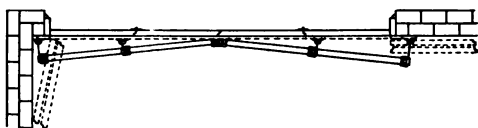


FIG. 6—FLOOR PLAN, FOUR DOOR OUTFIT

ever, upon the width of the wall space adjoining the opening. Where wall space is greater than the width of doors, they can be made to fold back when open, parallel with the front wall, as shown in Figs. 2, 6, 9 and 13.

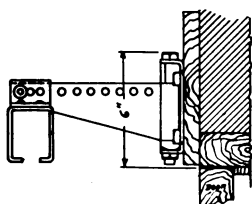


FIG. 7—No. 435-E END BRACKET

The hanger should be placed on the door for the three and four door outfit as shown in Fig. 3.

Figs. 8 and 9 illustrate the five door arrangement. As shown, this places two doors hinged together on one jamb and three doors on the other

jamb, the third door swinging free and making an ideal entrance door.

Figs. 10 and 11 illustrate the adjustable feature of the No. 271 Floor Guide for the four door outfit and the five and six door outfit.

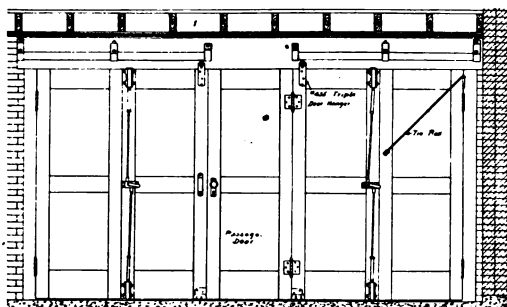


FIG. 8—FIVE DOOR OUTFIT

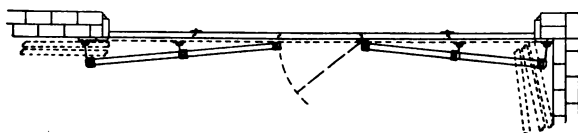
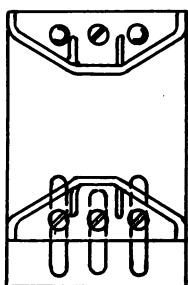


FIG. 9—FLOOR PLAN, FIVE DOOR OUTFIT

Figs. 12 and 13 illustrate the six door arrangement. This has the same advantages as the five door outfit in providing entrance doors, making a separate entrance in the garage unnecessary.

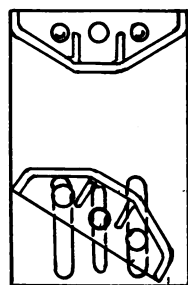
The No. 435 R-W Sliding Folding Outfit has good selling arguments.

Doors so installed occupy less room when open than single swinging doors.



No. 271 Floor Guide,
Set For Use with
Four Doors.

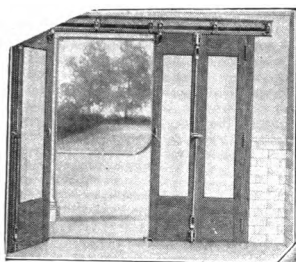
FIG. 10 — No. 271 FLOOR
GUIDE, USED WITH FOUR
DOOR OUTFIT



No. 271 Floor Guide,
Set For Use With
Five or Six Doors.

FIG. 11 — No. 271 FLOOR
GUIDE, USED WITH FIVE
AND SIX DOOR OUTFITS

Continued on Page 9



PATENTED

Meets *Every* Condition



No. 435
HANGER

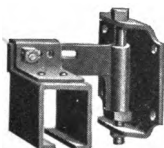
There is no other
garage door equipment
that fills every need as
will the

No. 435 R-W Sliding, Folding Garage Door Outfit

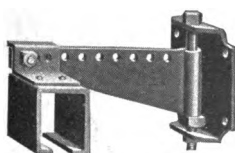
Can be arranged for
3, 4, 5 or 6 doors to close
the opening, enabling
the builder to have the
door arrangement fit in
with the house design.



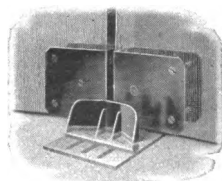
No. 435-C CENTER
BRACKET



No. 435-I INTER-
MEDIATE BRACKET

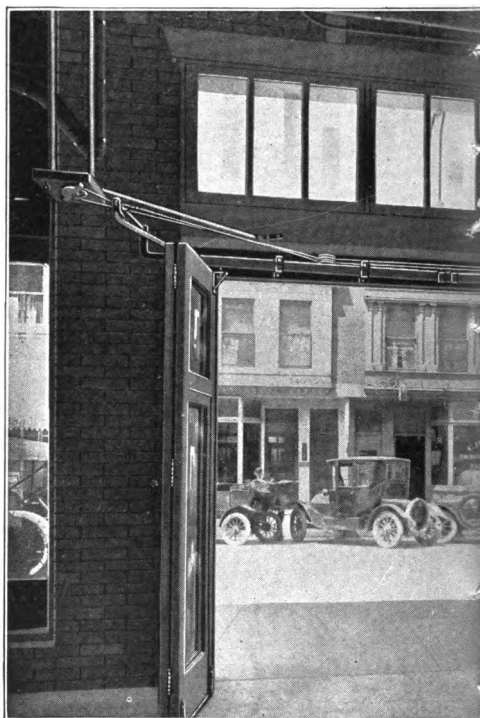


No. 435-E END BRACKET



No. 271 FLOOR GUIDE
WITH No. 301-72
BUMPER SHOE

**You Press
the Button**



PAT
TOU

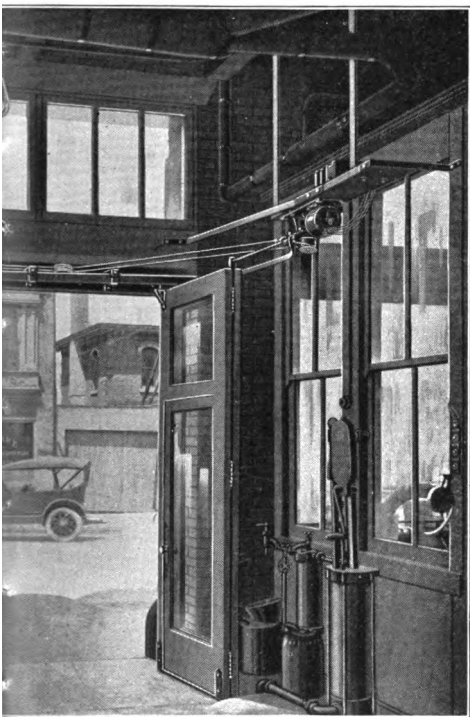
**For the public garage—and the private—
R-W Sliding, Folding Garage Door Equip
in every way.**

The R-W Stewart Electric Door Opener is a simplified device, made of unbreakable steel parts and actuated by a small electric motor. The entire device is installed just above the level of the doors and therefore does not occupy a single inch of valuable space. (See picture above.)

To open the doors, simply press a button. Be they large or small, heavy or light, they open quickly, smoothly and silently. As soon as they are open the motor stops automatically. Press another button and the doors close. Again the motor stops automatically.

Control buttons can be located

HAVE US S



**Open Comes
the Door**

UCH

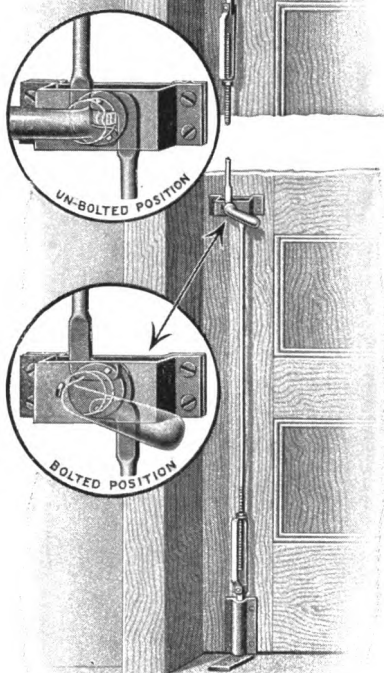
garage also, for that matter—the No. 435
ment, electrically operated means a saving

INSTALLATION

The installation of the electric door opener is very simple. Any intelligent workman — with the assistance of an electrician — can install in six hours. Device consists of a few strong, simple parts. We furnish everything complete — Motor, Cable, Drum, Relay, Switch, Push Buttons, Steel Cable, etc. Customer will be required to furnish a small quantity of insulated wire which varies in size and quantity according to city ordinances and the special needs of the individual job. We furnish printed diagrams and instructions for installing.

ed any place in the building

HOW YOU



Lock the Door- First

That means, put a real lock on the door before somebody makes it cost too much.

No. 517 R-W Top and Bottom Bolt

Made in three sizes for doors 7 to 10 feet high. Locks securely at top and bottom.

Can be locked and unlocked from the outside of door.

Ask us.



Continued from Page 4

Makes a nice weather-proof and tight job when closed.

It is a heat-saver in cold weather, due to the close flush fit.

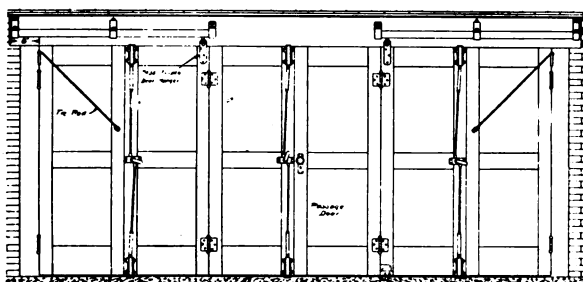


FIG. 12—SIX DOOR OUTFIT

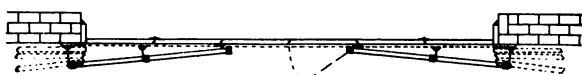


FIG. 13—FLOOR PLAN, SIX DOOR OUTFIT

Doors are stopped in the same manner as a house door.

Doors will not sag under any conditions, but which is common to all side hung doors.

Permits the use of part or all of the opening at any time.

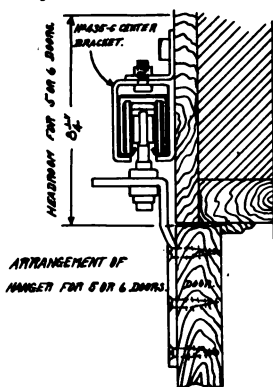


FIG. 14—SHOWING ARRANGEMENT OF HANGER FOR FIVE AND SIX DOOR OUTFITS

Prevents warping of doors at top which is almost unavoidable with a wide swing door.

With a five door outfit it provides a nice front entrance door. This also is true of a six door equipment.

Allows the use of doors that correspond with style of architecture used on residence.

Last: Puts the finished look to a garage front that is so much desired.

Understand, we furnish all necessary hardware excepting the Yale Knob Lock required on five and six door outfits. Blueprints are packed with each set of hardware shipped to assist carpenter in erecting.

ONE never seems to dissociate a house from its entrance, so that the front doorway becomes a primary consideration in every carefully conceived design for a home; the doorway must accord with and be worthy of the house, yet not overpower it, says the *New York Sun*. Narrow the proposition down to our so-called Colonial style and we become more than ever convinced that doorways, like men, have character and individuality and so lend distinction and charm to the building as a whole.

The Colonial style as we know it today represents an evolution among us. It is a living style ever sufficiently related to the past, yet completely suitable whether the dwelling be a cottage or a mansion and always capable of greater refinement and further adaptation to new uses and present-day requirements; it never grows old. Found from Maine to Louisiana, its motives and details are everywhere similar and relatively few in number, yet how varied are the effects in different localities resulting from dissimilar adaptation according to the state of affluence, racial characteristics, tastes, skill and local materials.

This is as true of the doorway as of the entire facade. Truly utilitarian in purpose and so lending itself more logically to elaboration for the sake of decorative effect, the doorway has long been rightly regarded as the principal single feature of a Colonial exterior. It is important as the entrance to the home; there a welcome is given and first impressions are received; it seems to symbolize the house as a whole.

One has but to read history in order to realize that houses, even their doorways, reflect the char-

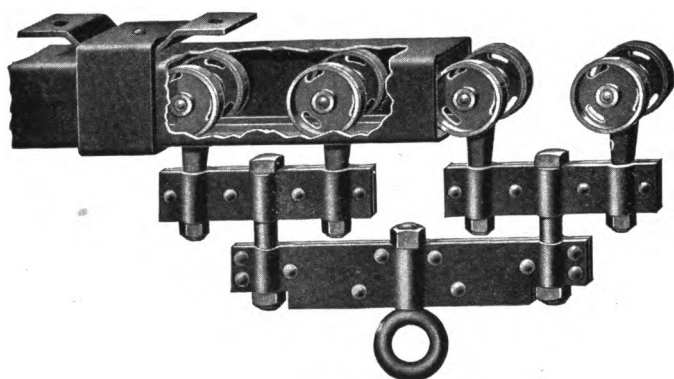
acter of those for whom they were built. The welcoming doorways of Salem are as broad and refined as her merchant princes were hospitable and cultured; and high, narrow doorways of Philadelphia speak truly of Quaker severity as well as of the social and political rivalries and jealousies of our largest, richest and most aristocratic city of that day; Boston doorways, through showing exceptional restraint in design and rare dignity of effect, seem to reflect something of the culture of which her distinguished old families were so proud; in their frequent disregard of architectural tradition New York doorways greatly augment the picturesqueness of facade evolved by the quaint Dutch people, whereas Baltimore doorways, although reminiscent of Salem in breadth and refinement, possess a distinctive originality of adaptation of Renaissance motives that one likes to associate with the true spirit of religious freedom which brought the early settlers to Maryland.

The typical doorway of the South is a thing apart, a tradition in itself, usually subordinate to a heavy portico built partly in response to climatic conditions and partly to impress the beholder with the dignity and importance of the owner; it is an expression of the almost baronial mode of life then indulged in by the wealthy planters. However good the doorway itself may be, it is somewhat lost in the general effect.

Who shall say that in his choice of a doorway the prospective home builder does not reflect his own personality and mental attitude toward his fellowmen? Certainly his course is clear, whether he would encourage friendship with his neighbors or maintain toward them an attitude of distant exclusiveness.

IN EVERY public garage and many private garages there is a need for Richards-Wilcox Overhead Carrying Equipment. This system should be so located for the ready handling and removing of motors from the chassis, in raising automobile bodies to replace broken axles, and any similar work where the lifting and moving of weighty articles is part of the daily work.

This swivel carrier shown has a capacity of 1,500 pounds when operating in No. 175 Trolley Track and 500 pounds when operating in No. 75 Trolley Track.



NO. 100-11 AND 100-13 CARRIER

The R-W Equipment is complete, with trolley track or I-Beam, curves, switches, overhead turntables, traveling cranes, jib cranes, carriers and hoists to fill any requirement.

A suggestion to a client at the proper time may mean additional business for you and a more economical and efficient arrangement for him.

If you will send us sketch showing the general layout, overhead timber for supporting the track, capacity required, results desired, etc., we will be glad to advise just what will be needed.

The farm hands were taking turns at the pump for their morning wash. All scrubbed off except the new man.

"Joe," said the boss, "aren't you going to wash up this morning?"

"Shucks!" was the reply, "It don't make me dirty to sleep."

.. ..

A pretty young woman tripped up to the counter where a new clerk was sorting music and in her sweetest tones asked: "Have you 'Kissed Me in the Moonlight'?"

The clerk turned around, looked at her, and answered:

"It must have been the man at the other counter, I've only been here a week."

.. ..

"Prosperity has ruined many a man," declared the moralizer.

"Well," rejoined the demoralizer, "if I was going to be ruined at all I'd prefer prosperity to do it."

.. ..

Kid—"How did you get the red marks on your nose, Uncle?"

Uncle—"Glasses, my boy."

Kid—"Glasses of what?"

.. ..

A friend had given Pat a "parrot" which in reality was a baby owl. Several days after, Mike happened by.

"Is the parrot spakin' yit?" asked Mike.

"Niver a word," answered Pat. "But th' little divil is doin' a lot of thinkin', he is."

.. ..

After the clock struck eleven the peevish father strode to the top of the stairs and called down: "Mabel, doesn't that young man know how to say 'good-night'?"

"Does he?" echoed Mabel from the darkened hall below. "Well, I should say he does."

.. ..

"Smith walked meekly up to the blouse counter of a department store and said to the pretty young lady attendant with a blush:

"I'd like to buy a blouse for my wife, please."

"What bust?" asked the young girl politely.

Smith blushed a second time.

"Why, I didn't hear anything," he said.

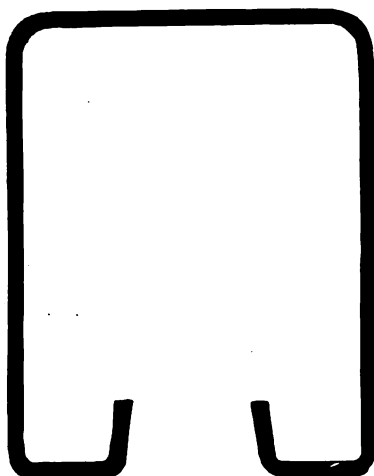
.. ..

"Well, Dinah, I hear you are married."

"Yassum," said the former cook. "I'se done got me a man now."

"Is he a good provider?"

"Yassum, he's a mighty good pervider, but I'se powerful skeeder he's gwine to get kotchd at it."



FULL SIZE CROSS SECTION OF No. 31
TROLLEY TRACK

THIS track is used on a big majority of the sliding door installations in this country. It makes a perfect stock item for the dealer as it comes in 4, 6, 8 and 10-foot lengths, and can be used on 90 per cent of the garage, barn, church and ordinary sliding door jobs.

Used with No. 435 outfit.

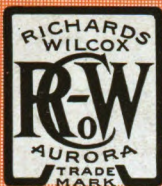
Richards-Wilcox



MANUFACTURING Co.
AURORA, ILL. U.S.A.



DOORWAYS



R-W
AURORA
ILL.

R-W
AURORA
ILL.



"SIGNS OF THE TIMES"

APRIL

PREJUDICE IS AN EXPENSIVE FOLLY

YOU can't make the mountains level with the prairies by denying their existence. You can't take superior merit out of goods by refusing to consider them. Prejudice is not an argument, but a locked door that bars your own progress.

Nearly all the people who saw Columbus sail westward said he would drop off the edge of the world. If he had believed them, America might have remained undiscovered. Prejudice is a barrier that makes progress unlikely.

Persons who watched the Wright brothers, ridiculed their aeroplane efforts. Prejudice refused to hear their arguments. They succeeded. Prejudice lets "well enough alone." It holds back achievement — prevents the experience of economies and advantages.

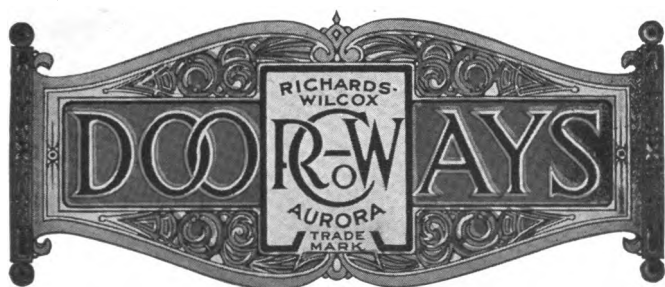
If you don't want to believe, that is your affair. Refusing to believe is like denying there is thought because thought can't be seen. Nothing can be seen or understood until it is investigated. Prejudice refuses investigation.

Peary and Amundson proved what everybody said would never be possible; they discovered the earth's poles. The advantages of a purchase are as distant as the poles of the earth unless they are scrutinized. Prejudice stays at home, but investigation hunts for something better.

Eighty years ago, people ridiculed the railways for attempting to compete with stage-coaches. Advances in all lines are more likely today than they were in the past. Prejudice harms its possessor most now because it shuts him off from today's rapid economical progress.

Thousands of years before the circulation of the blood was proved the blood circulated just the same. Prejudice fought science and the progress of science. Prejudice won't make a truth untrue but it will keep you from benefiting through that truth.

If a mountain contains gold, the gold is there. Disbelief does not destroy it, but search finds it. Prejudice denies the gold of progress — and leaves that gold for others.



FOR APRIL, 1916

Full of Good Sense, Good Humor, with a Hunch for R-W Products
Published Once a Month by

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

Officers

W. H. Fitch Pres. & Gen'l Mgr.
Lee Mighell Vice-President
Milton D. Jones Sec'y & Treas.
P. L. Hoffman Superintendent
The Richards-Wilcox Canadian Company, Ltd.

Branches

85 Walker Street New York City
15 East Lake Street Chicago
50 North Sixth Street Philadelphia
132 Pearl Street Boston
1735 Boatmans Bank Building St. Louis
321 Plymouth Building Minneapolis
London, Ontario

D. M. KAGAY, Editor

Hanging Garage Doors

R-W Garage Door Equipment No. 635 Receding Door Type

THE garage is not so many years old — younger than the automobile, but even so, it has earned a place for itself in architecture. The barn, where there are any left, has passed into the discard as a place to keep the car, — the housing must be in keeping with the automobile and with the home.

There is nothing that adds more to the convenience as well as the looks of a garage as properly hung doors. In the Richards-Wilcox line is found the best collection of garage door equipments on the market.

A new addition to the collection, and one of the best, is the No. 635 R-W Receding Garage Door Outfit, described in this issue.

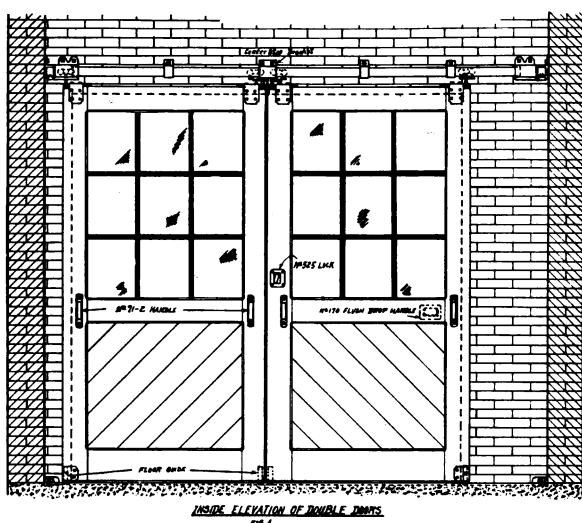


FIG. A

In Fig. A is shown the double door arrangement, where the doors slide right and left. These doors are completely equipped with hangers, track, locks, pulls and floor guides. The No. 525 Lock holds the doors together, the center stop bracket prevents their being moved, making a sure locking arrangement.

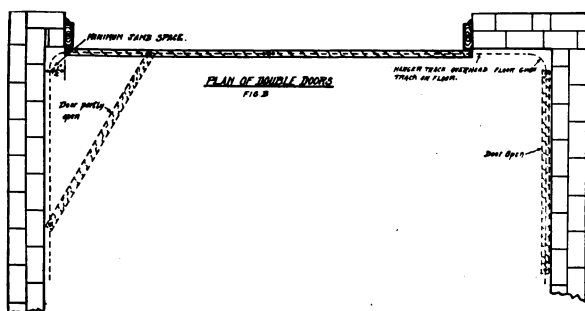


FIG. B

Fig. B is a plan of double doors showing minimum jamb space and that the door can be run around the corner and back along the wall.

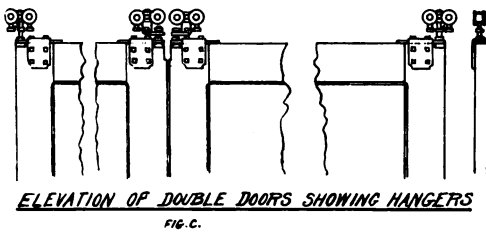


FIG. C

Fig. C illustrates elevation of double doors, and where the different hangers are used — No. 635-1 on outer end and No. 635-3 on inner end of door.

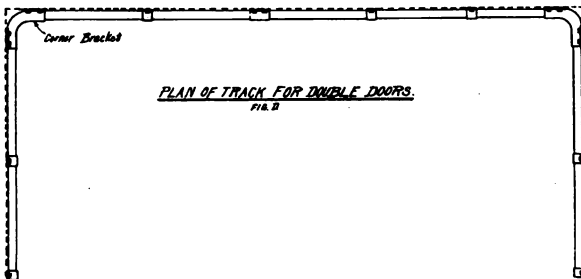


FIG. D

Fig. D shows plan of track for double doors, and how corner brackets are always attached in the corner.

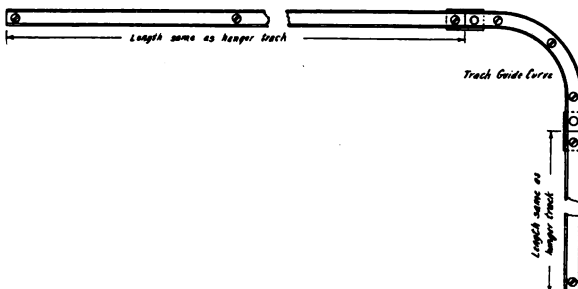


FIG. E

Fig. E shows floor guide track, which should be the same length as the trolley track, and floor guide curve.

One of the advantages of the No. 635 receding type door is shown in Fig. F, where the jamb is about two feet from the corner and the door can

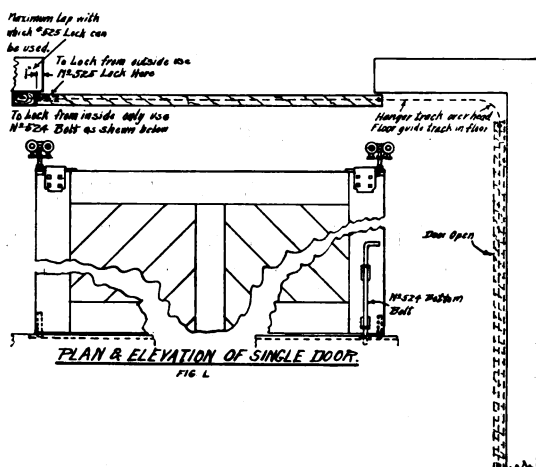


FIG. F

slide completely around the corner and cover the opening. The curved corner bracket is always in the corner, keeping both front and side wall tracks on the same level.

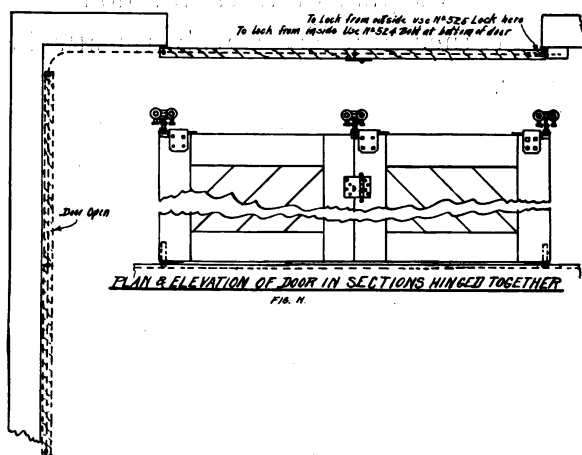
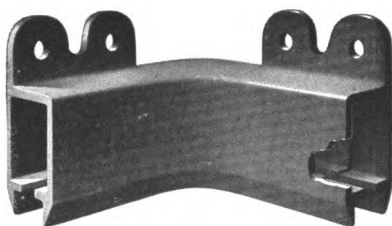


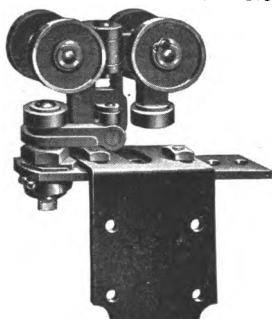
FIG. G

In Fig. G is shown how doors hinged together can be used when for lack of room in the garage it is necessary to save space when the door turns

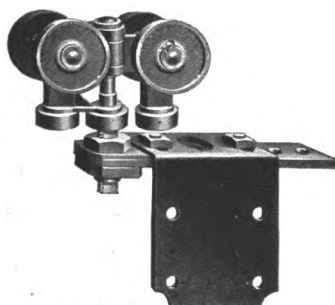
Continued on Page 9



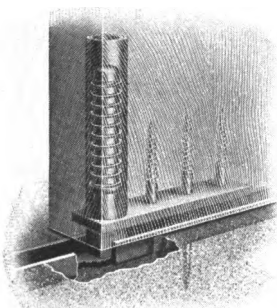
PATENTED
No. 635 CURVED CORNER BRACKET



PATENTED
No. 635-3 HANGER



PATENTED
No. 635-1 HANGER



No. 635 FLOOR GUIDE AND
FLOOR GUIDE TRACK

Asssure Satisfaction

What you want is
satisfied customers,
—so why take any
chances. Sell

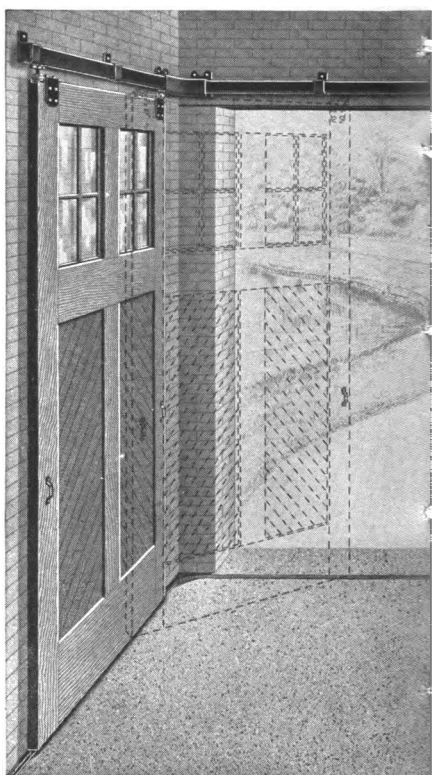
No. 635
R-W Receding Garage
Door Hangers

They make a stock
proposition out of
the around the cor-
ner door and satis-
fy the most critical
buyer.

Get in on this
good thing.

Richards-Wilcox
MANUFACTURING CO.
AURORA, ILL. U.S.A.

"A Hanger for Any Door that Slides"



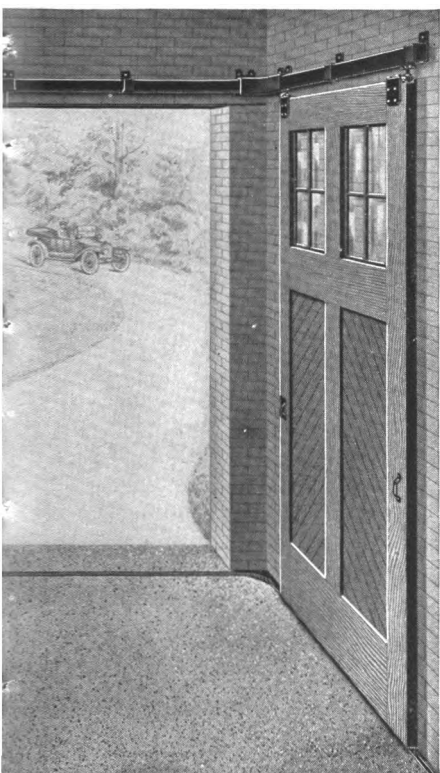
“A Hanger
for Any Door
that Slides”

Another Garage

The garage is an ever increasing market for
the hardware man and the architect

No. 635 R-W
Door E

This outfit is one more argument for
secure this money-making trade.



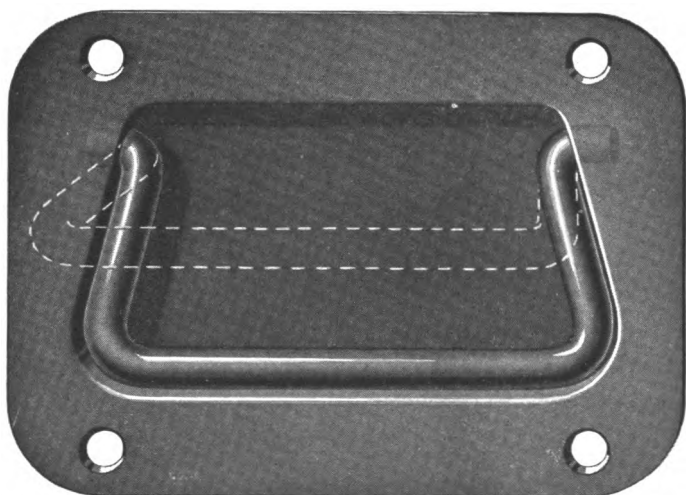
Full detailed
information on
request.

The Door Winner

ing field for profitable business for
t, carpenter and contractor.

eceding Garage
quipment

ent at your command to help you



PULL

A good secure grip on anything gives a feeling of security, builds confidence and tends to create satisfaction.

No. 170

R-W Flush Drop
Handle

can be successfully used where a good hold is required and a protruding handle would be in the way.

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.



Continued from Page 4

the corner, although under ordinary conditions the space required is reduced to the minimum as shown in Fig. I, and is always the same regardless of distance of jamb from side wall.

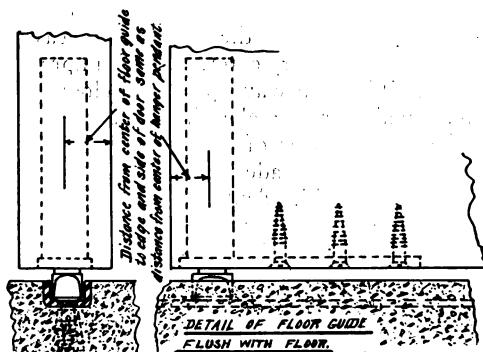


FIG. H

To guide the bottom of the door and to assist to a certain extent in the ease of its operation, floor guides as shown in Fig. H are part of the equip-

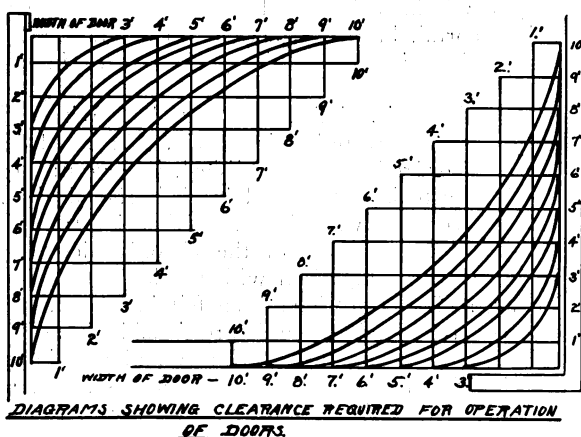


FIG. I

ment. The same number of guides as hangers are used.

Detailed information gladly sent on request.

IF THE utilitarian view is taken of architecture, if purpose is regarded in the selection and arrangement of details and accessories, the possibilities of the doorway becomes almost infinite. The doorway stands for social life. It represents hospitality. It may be made to typify any one of the many qualities which the owner or architect elects to express. It may exhale a welcome. It may represent kindness or cold severity.

In the life of almost every individual, instances may be recalled of some momentous visit or social call and how feet were leaden or elastic with hope as the steps were measured between gate and threshold, how every exterior detail impressed favorably or unfavorably. The doorway speaks in eloquent or rasping tones. It may make or unmake the fortunes of its possessor because of that vital power of expression. Its impressions are made when impressions made sink the deepest — when the seeker is at the threshold. And just as the kindly or appreciative word is the most welcome when spoken at the right moment, so the doorway should soothe, inspire and charm.

In a thousand ways this may be accomplished. Merely a gifted touch often does the work, an inexpensive trifle, suggesting the kindness of the occupant within. Or, if elaboration is sought, beauty may be heightened to an indefinite degree. The stamp of culture may be impressed in delicate but unmistakable terms.

From time immemorial the doorway has been utilized to express sentiments and events of unusual importance, marriage, illness, death, festivities. In the days of superstition the lintel was carved with charms to attract blessings or to repel evils. The door was the dividing line within which the passing guest was safe, without which his life was endangered. It was the portal, to pass within which saved the occupant from arrest or, if a religious portal, brought sanctuary to the fugitive. However weak the door, it possesses the strength of an impregnable castle.

In the feudal age its timbers were studded with defensive metal. Its proportions were heroic, its visage breathed defiance. And as law and order became established, its severities relaxed. Grace and beauty took root around its sheltering devices. The fragrance of flowers was wafted from neighboring trellis.

Perhaps the subtle richness of the Colonial doorway owes its power in part by comparison with the less expressive doorway of today, and may not have been felt in Colonial times as now, but even to the almost unimpressible it now stands for simplicity, for comfort, for hospitality and for kindred virtues. The inviting knocker, the homely foot scraper, perhaps with hand-hold above, the hanging lantern were all suggestive and kindly.

And the opportunities for similar suggestiveness are broad today. The trellis seat, the flower stand, these and numbered other details, may give character and charm, and each doorway detail may suggest. It is the doorway that is longest remembered. It is the doorway that has the greatest mobility of external feature, and that lends itself best to the niceties of artistic expression.

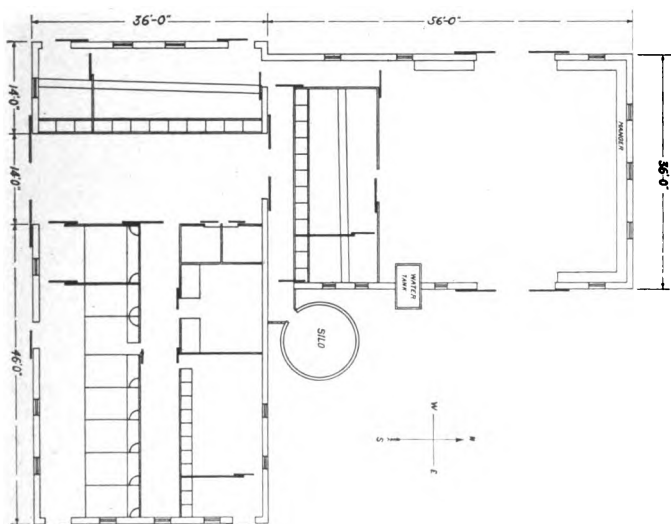
IN THIS big barn there are twenty-two single sliding doors and four pairs of sliding doors requiring thirty pairs of Richards-Wilcox hangers and two hundred and sixty-eight feet of trolley rack.



THE MAPLES FARM BARN, VAN BUREN COUNTY, MICHIGAN,
OWNED BY JESSE V. WISE, CHICAGO

This barn is strictly modern and sanitary, having a cement floor throughout, cement mangers and gutters. It has capacity for one hundred and forty tons of hay, one hundred head of cattle, fifteen hundred bushels of grain, also other small bins for ground feed, a 12 x 30 foot silo, etc.

The floor plan gives a clear idea of the arrangement.



FLOOR PLAN OF ABOVE BARN. NOTICE NUMBER SLIDING DOORS

Free to the Trade

If you want to sell your business or a partnership.

If you want to buy a business or partnership.

If you want an employe.

If you want a position.

A new classified ad. section in "Door-Ways." A twenty-five to fifty-word ad. may open to you just the opportunity you want.

Copy must be in our hands by the 15th of the month preceding the date of issue. Copy for June, 1916, issue we must have by April 15, 1916.

In offering this service, free, to the trade, it is our desire to be the means of bringing together those of our readers who wish to make a change.

Copy can give the name and address of the advertiser, so he will receive the reply direct, or be keyed so the reply comes direct to us, for prompt mailing to the advertiser.

Following is a sample of an ad. which is sure to bring results:

WANTED—Young man with architectural and sheet metal drafting ability, or a young man that has had previous experience as a metal window, fire door and sheet metal salesman and who can work from architect's plans. We would prefer to secure the services of one that can handle both propositions. In your answer state your age, previous experience, salary you believe you can command and give references. Do not apply unless you are determined to stick and progress with a growing concern. Address Willis Mfg. Co., Galesburg, Ill.

Remember, this is free to the trade and is limited to wants as stated above.

Send in your copy.

Smoked Salesman

Westerly, R. I.

To the Editor:

Through your magazine I would like to ask the jobbers and some manufacturers if they know the number of their representatives who are really annoying and displeasing to a man who does not use tobacco?

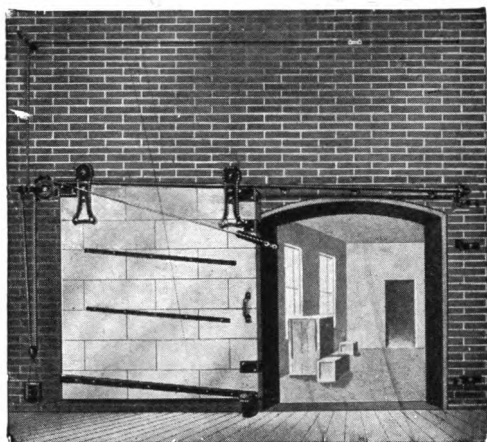
Salesmen fairly reek of tobacco in some cases.

I have had two cases lately where they have tried to explain their goods, all the while holding a cigar or pipe in their mouths, acting as a representative of the factory chimney, not as a representative of a clean-cut house.

This, I am glad to state, applies to a small percentage of traveling men. Thanking you, I am,

Yours very truly,

H. A. DUNNING.



Sell Fire Door Hardware

There is a market right in your town—in factories, schools and churches, heating plants, theatres, some store buildings.

In buildings where fire doors are needed, their use will lower the insurance rates.

Go after this business. It will increase and extend your trade.

Let us know of every possible prospect—we'll help you get the business.

"A
Hanger
for Any
Door
That
Slides"

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.





**OUR
DECLARATION
ABOUT
DOORWAYS**

*That the proper
hanging of doors
in doorways is
of great import-
ance.*

*Every door a
sliding door
P.W.H.*



I Love to Help the Other Fellow —

THE other fellow is my friend, and I find my greatest joy in helping him. Experience has told, and has proved to me, that I cannot receive without giving. I know that my own success is measured in accordance with my relationship with other people.

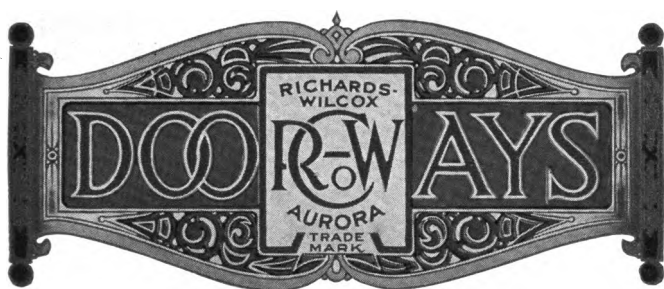
Sometimes I feel that I am living my life alone — but when I look over what I have done during the preceding day, I realize that everything has depended upon the other fellow. Every time I help the other fellow, I inspire him to help somebody else. Unless the world accepted and dictated the doctrine of the "other fellow," there would be no civilization, no business, no charity.

Prosperity is not due to your optimism or mine in ourselves, but to our belief that the other fellow is of the same mind and is going to do everything within his power to help somebody else. If the other fellow did not think of us, and of still others, then all of us would sink into selfish, narrow grooves — distrusting, disbelieving. The net result would be the most deplorable kind of pessimism. You would fail and I would fail.

I cannot carry my message of cheer and assistance to every individual in the world because my work lies within certain boundaries. Yet, within those boundaries, I can help the other fellow as I meet him, and I love to help him. I believe in that broad point of view of life that considers the other fellow.

I believe that it is to my advantage; if for no other reason than for the satisfaction I feel, to go a little more slowly and take the other fellow by the hand and help him over the rough places. I believe that there is no better inspiration for myself than to help the other fellow. The other fellow has often helped me. Why should I cramp my interpretation of life within the confines of selfishness?

I love to help the other fellow because the other fellow and I are partners.



FOR JULY, 1916

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P. L. Hoffman Superintendent

The Richards-Wilcox Canadian Company, Ltd. London, Ontario

Branches

85 Walker Street New York City

15 East Lake Street Chicago

50 North Sixth Street Philadelphia

132 Pearl Street Boston

1735 Boatmans Bank Building St. Louis

321 Plymouth Building Minneapolis

Volume 4

D. M. KAGAY, *Editor*

No. 7

Sliding Doors in This Prize Winning Residence

IN A PRIZE competition just completed, conducted by the American Carpenter & Builder, many well designed and constructed buildings were shown.

A point worthy of note, every building in the residence class had one or more sliding doors. These prize winners were entered in the contest from all sections, east, west, north and south; they ranged in cost from \$3,000 to \$10,000. These facts show that the advantages in using house door hangers are known and appreciated very generally by the architectural and contracting profession all over the country.

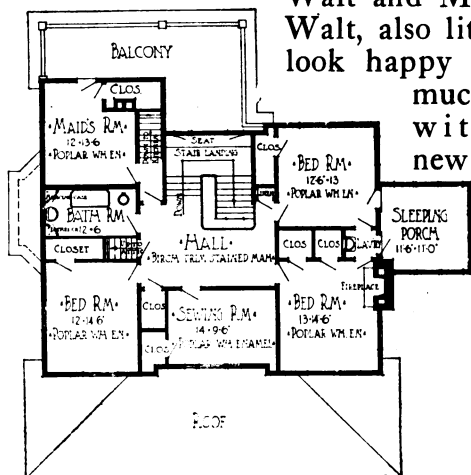
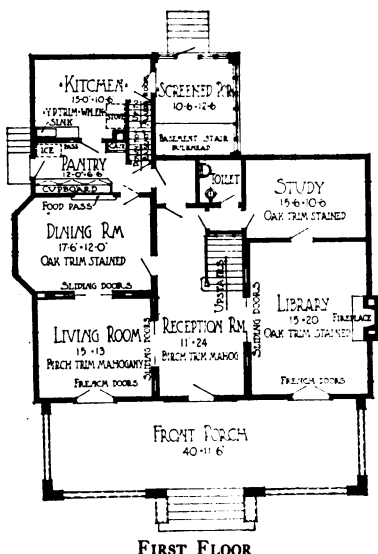
Want Ads, see page 12

The accompanying plans show the room arrangement of one of the prize winners. This is a ten-room residence planned and built by H. W.

Brinkman and T. J. Cox. The complete cost of this house was about \$10,000. As you can see, there were three sets of sliding doors used.

This is the home of the famous Kansas poet, Walt Mason, known as the Fat Poet or Uncle Walt. It is located at 606 West Twelfth Avenue, Emporia, Kansas.

The illustration shows the home just completed. Uncle Walt and Mrs. Uncle Walt, also little Mary look happy and very much pleased with their new home.



SECOND FLOOR

Room arrangement of Walt Mason's home. Uncle Walt writes his poems at home, which accounts for study shown.

Of frame construction, the shingles are stained green for the roof, and a deep brown for the walls. The foundation, flue and piers are of matt faced

"Wishing Is an Expedient to be Poor"

reddish-brown brick. The front steps are of Kansas stone, as are the caps on piers. This house is not elaborate, as you may suppose. It has plain sawed red oak floor in first floor and edge grain yellow pine in the second. The finish is plain red oak on first floor and yellow pine on the second.

Contractor Cox, who handled the work, writes: "This job was done under contract by me except the plumbing, heating and wiring. I cannot help



WALT MASON, MRS. WALT MASON AND LITTLE MARY ON THE
STEPS OF THE NEW MASON HOME

but feel a little proud of having received the honor of building this fine house for the one and only Walt Mason."

You have all read Walt Mason's prose poems. They are short moving pictures of real life, in print. They sketch life's story in few words and they always leave a thought in the reader's mind.

Read this one. You can just see this old man at the foot of the hill, with that smooth insidious, well-lighted road leading down from the top, strewn with the wrecks of life and the hopes and ambitions of men, cast aside to lighten their downward way.

"Wishers and Woulders are Never Good Householders"

Weary Old Age

By Walt Mason

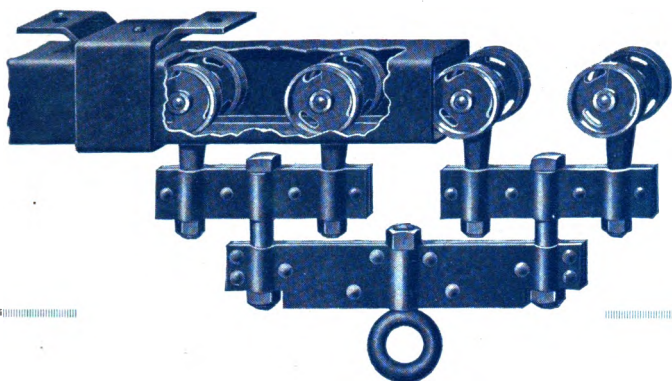
IT WAS a bent and ancient man who toiled with spade and pick, and down his haggard features ran the sweat-drops, rolling thick. And, as he toiled, his gasping sighs spoke darkly of despair; a hopeless look was in his eyes, a look of grief and care. He toiled, all heedless of the crowd that journeyed to and fro. "It is a shame," I said, aloud, "that Age should suffer so." He overheard me, and he said: "I earned this fate, in truth; when young I stained the landscape red; I was a Gilded Youth. I bought the merchandise that's wet, I fooled with games of chance; and now, in misery and sweat, I wear the name



WALT MASON IN REAL LIFE — HE DOESN'T LOOK LIKE
A POET, BUT HE IS

of Pance. I was a rounder and a sport, a spender and a blood, and now, when I loom up in court, my only name is Mud. I filled my years with gorgeous breaks, I thought my life a game; I threw my money to the drakes, and wallowed deep in shame. I used to hate the sissy-boys, those mollicoddle lads, who were content with milder joys, and salted down the scads; and now I see them passing by, in opulence and ease, while I, too luckless e'en to die, am doing tasks like these. Sometimes, in racking dreams I see the money that I burned; but do not waste your tears on me — I'm getting what I earned!"

"Wishes Never Filled the Bag"



No. 100-11 AND 100-13 CARRIER

OPPORTUNITIES

In every factory, foundry, warehouse, machine shop, garage, the handling of material is an item of considerable expense.

All of these places have some method of handling material, the question is, which method is the best.

R-W Overhead Carrying Equipment

The R-W Equipment is complete, with trolley track or I-Beam, curves, switches, overhead turn-tables, traveling cranes, jib cranes, carriers and hoists to fill any requirement.

A suggestion to a client at the proper time may mean additional business for you and a more economical and efficient arrangement for him.

If you will send us a sketch showing the general layout, overhead timber for supporting the track, capacity required, results desired, etc., we will be glad to advise just what will be needed.

Richards-Wilcox

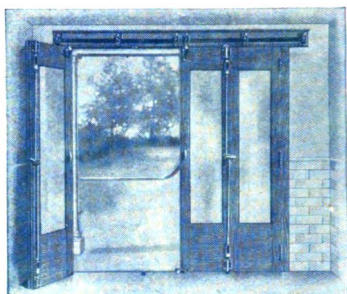
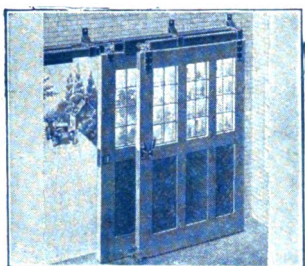


MANUFACTURING Co.
AURORA, ILL. U.S.A.



A Hanger for Any Door that Slides

The Four Best Ga



FOR those who prefer parallel sliding doors, or when existing conditions make their use necessary, we submit the above outfit.

Parallel Sliding Doors

These doors fully equipped—
No. 29½B R-W No-Fault B. B. Hangers.

No. 259 R-W Parallel Track,
No. 232 size, with weatherstrip.

No. 525 R-W Faultless Lock—
for locking to jamb.

No. 516 R-W Parallel Door Bolt
and Lock.

No. 172 R-W Adjustable Paral-
lel Door Floor Guide.

Track as shown above is assem-
bled complete in sections for differ-
ent size openings. Weatherstrip ex-
tends below top of door, making
them storm-proof.

THIS outfit is very popular. Doors
so installed occupy less room
when open than single swinging
doors. Makes a weather-proof and
tight job when closed. Allows use
of doors that correspond with style
of architecture used on residence.

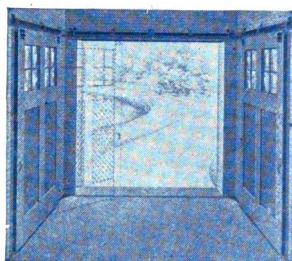
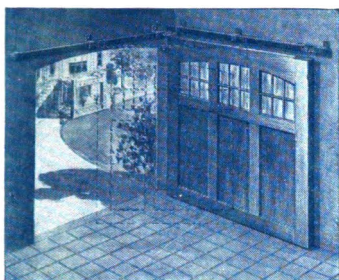
No. 435 R-W Sliding-Folding Garage Door Outfit

Four doors hinged together in pairs
are required for each opening, one
pair folding to the right and the
other to the left. When needed,
however, five or six doors can be
used, in which case the center doors
swing free, making ideal entrance
doors. Will stand at any angle de-
pending, however, upon the width
of the wall space adjoining the
opening. Where wall space is greater
than width of doors, same can be
made to fold back when open, paral-
lel with the front walls. Blue
prints showing erection details fur-
nished with each order.

Can be operated by electric motor.

Every Or

Garage Door Outfits



THIS unique door arrangement excites comment wherever installed. The door when open is at right angle with the opening, leaving it free and unobstructed for use. There is no danger of the car being injured when going in or out by the door slamming shut against it.

No. 235 R-W Right Angle Door Hanger

Hangers have vertical adjustment; metal wheels. For door to lay close to jamb, track over opening has to be slotted part way through at point where pendant of rear hanger on door comes when door is in closed position.

For doors $1\frac{3}{4}$ to 2 inches thick use No. 31 Trolley Track.

For doors $2\frac{3}{4}$ to 3 inches thick use No. 33 Trolley Track.

No. 235-1 Four-Wheel Hanger for No. 31 Track.

No. 235-11 Four-Wheel Hanger for No. 31 Track.

No. 235-2 Four-Wheel Hanger for No. 33 Track.

No. 235-12 Four-Wheel Hanger for No. 33 Track.

No. 235-3 Two-Wheel Hanger for No. 31 Track.

No. 235-4 Two-Wheel Hanger for No. 33 Track.

No. 235-5 Four-Wheel Knuckle-Joint Hanger for No. 31 Track.

No. 235-6 Four-Wheel Knuckle-Joint Hanger for No. 33 Track.

Hangers No. 235, No. 1 and 2 furnished Knuckle-Joint for ends of door when used on curved track. Hangers No. 235, No. 5 and No. 6, used only on hinged doors over joints.

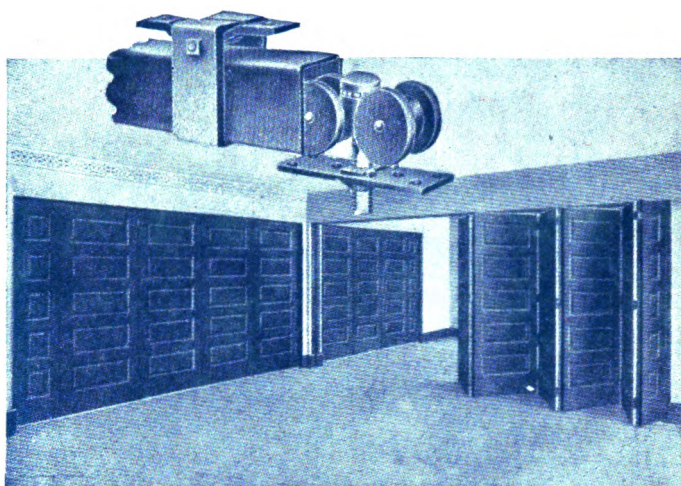
A NEW member of the R-W Garage Door Equipment family. Tracks are connected in the corner by curved corner bracket and are always on same level. Doors when open are always flat against side wall.

Single doors, doors in pairs or several doors hinged together operate perfectly.

No. 635 R-W Receding Garage Door Outfit

No special overhead supporting timbers are required, as the track attaches directly to the walls of the garage in all cases. Minimum distance from edge of door (not jamb) when closed, to side wall, $4\frac{1}{2}$ inches. Hanger wheels are steel, ball-bearing; frame malleable iron, swivel pendant. Vertical adjustment. Curved corner bracket, reversible for right or left side.

e Popular

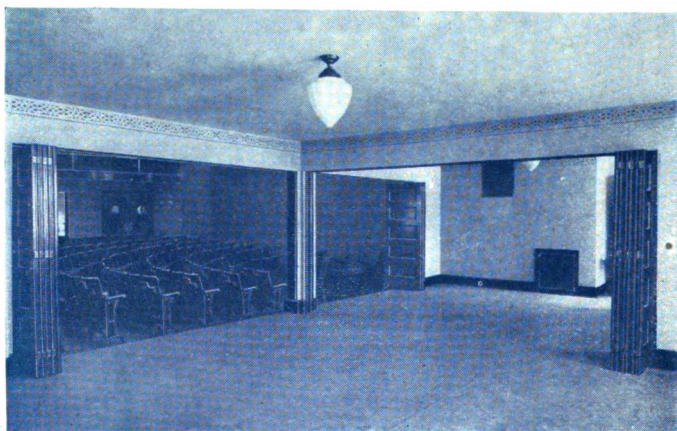


THE plan of interior arrangement of churches is undergoing a change. The trend is toward making the interior open and free from immovable walls and partitions for large gatherings and still be able to divide some of the large rooms into small class-rooms.

One of the most satisfactory methods is by installing folding partitions, using

R-W Accordion Door Hangers

No. 135 Hanger, shown above, and No. 335 Hanger are four-wheel hangers, and are placed on every other door. No. 137 Hanger is a two-wheel hanger and is placed on every full sized door; not needed when the four-wheel hangers are used. These hangers have metal or fibre wheels, ball-bearings or roller-bearing.



Robert J. Reidpath & Son

Architects and Engineers

Builders' Exchange, Buffalo N. Y., Nov. 4, 1915.

RICHARDS-WILCOX MFG. Co.,
Aurora, Illinois.

Gentlemen:— Taking this opportunity will say that the Fifty Right Angle Doors that we installed in the garage here in Buffalo, have so far given excellent satisfaction.

Signed, R. J. REIDPATH & SON,
Per E. H. R.



FIFTY NO. 235 R-W GARAGE DOOR OUTFITS IN THESE GARAGES

The accompanying illustration shows how and where these outfits were used.

This community grouping of individual garages is an excellent idea for residence or apartment house sections of cities. It gives each auto owner a private garage in a fire-proof building having the conveniences of a public garage at a small rental expense. When he locks the garage doors he can feel his car is in a safe place and will be there when he next wishes to use it.

The use of No. 235 R-W Right Angle Garage Door Outfits on these garages means a saving of space, and that the buildings will look as neat and trim when part or all of the doors are open as they do when closed, because the doors slide around the corner against the side walls inside the garage.

"With Wishing Comes Grieving"

EVERYBODY knows what a door hanger is. "Certainly, our barn at home has those big doors hung on door hangers." That's true, and there are many other doors in many other buildings hung on door hangers, in houses, garages, churches, schools, factories, office buildings, etc., but even the best informed do not realize the many places where their use would add to the convenience and comfort of the users of the building.

Fig. 1 is an example of where door hangers and track can be used to advantage in a manner a little out of the ordinary. In front of the horse stalls, a row of small doors, nearly square, can be hung on one long track. This arrangement would allow for

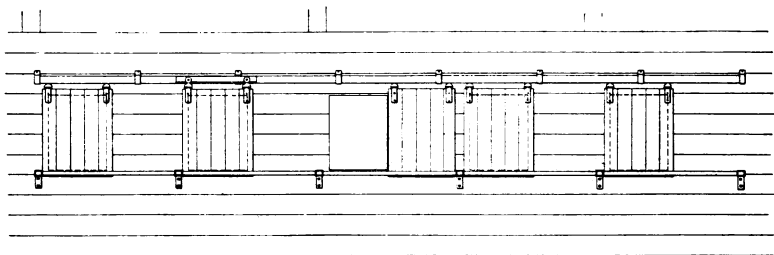


FIG. 1

one or all of them being opened to feed the horses or for ventilation. Doors after this same plan might be hung along a row of feed bins, or in corn cribs for unloading from wagons, or for coal sheds when several different grades of coal were kept in separate bins.

These few suggestions will no doubt bring to your mind many other places where such an arrangement would work to good advantage. Originality in any line of work is what brings a man to the front. If he is aggressive, has initiative and has original ideas which are sound and really improve on old ways, he will be much sought after.

No. 021 R-W DuFlex Door Hangers, No. 3† Trolley Track and No. 278 R-W Round Steel Guide is the equipment which will handle most jobs of this kind.

"What Ardently we Wish we Soon Believe"

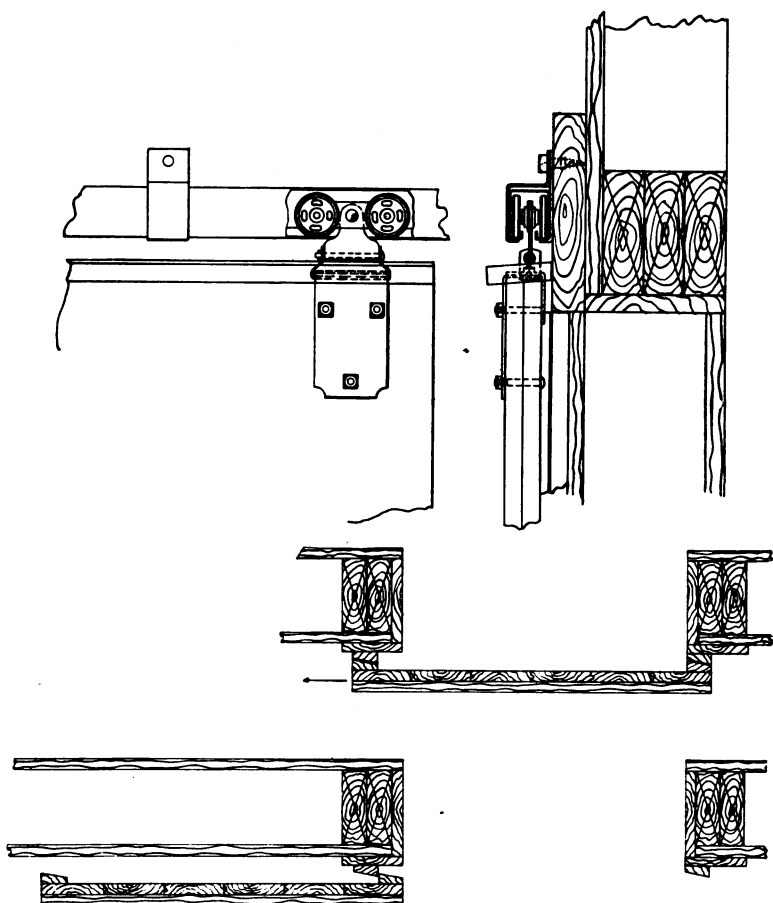


FIG. 2

Sometimes you might be told that sliding doors are not as warm as doors hung on hinges. This is true only when not properly arranged, and is easily avoided if the doors are built right.

Fig. 2 illustrates how this can be accomplished. Doors to be hung on hangers should be six inches wider and two inches higher than the opening, a 1½-inch plank should be used to fasten the track onto. Doors are made of two layers of matched lumber, running at right angles, with paper between. There is a beveled check rail on the door and one on the casing at each side, two inches wide and 7/8 inches thick. The doors are tight when shut, yet work freely as soon as started open.

“No Wise Man Ever Wishes to be Younger”

Free to the Hardware Trade

If you want to sell your store or business.

If you want to buy a store or business.

If you want an employe.

If you want a position.

Send in your ad. Copy can give your name and address or be keyed for answer to come to us for re-mailing to you.

This may be your opportunity.

POSITION WANTED—As manager of Hardware Store or large Department, preferably Sporting Goods, Cutlery or Stoves. Salary or percentage basis. Have had eight years' experience. Best of references. Address, R. H. S., 530 Prospect Ave., El Paso, Texas.

POSITION WANTED—As compiler of General Hardware Catalogs, also Specialty Departments of Hardware. I am an expert, having had seven years' compiling experience. Location matter of indifference. Best references furnished. Address, R. H. S., 530 Prospect Ave., El Paso, Texas.

FOR IMMEDIATE SALE—One complete structural steel and light metal working shop, located on switches of Iron Mountain & Frisco R. R. Has ample grounds. Buildings new, of steel construction, supported free of post, 40 x 75 feet. Business located in wholesale district and near passenger depot and street car line. Address, "Mo," care "Door-Ways," Aurora, Ill.

WANT TO REPRESENT—Young man with hardware experience desires to represent several Specialty Manufacturers in St. Louis and surrounding towns. Best references furnished. Address, "W. L.," care of "Door-Ways."

WANT TO REPRESENT—Manufacturer's line in Middle West. Have had several years' experience buying and selling hardware. Can make good. Can furnish best of references. Address, "T. A. E.," care of "Door-Ways," Aurora, Illinois.

FOR SALE—200 acres of farming land, all in cultivation. Plenty of water. Located four miles from good town in Beckham County, Oklahoma. Will sell on terms, at a bargain. Address, C. W. Stroker, Olney, Mo.

WANTED—Hardware stock; prefer in Illinois, Wisconsin or Minnesota, for 320 acres in Montana or 320 acres in Alberta, Canada. Address, Clarence C. Barlow, Arcadia, Wis.

FOR SALE—Nice, clean stock of hardware, will invoice about \$3,500. Not one dollar's worth of junk in it. Situated in good, live town in Northern Oklahoma. Rent reasonable. Good business and opportunity. Good reasons for wanting to sell. Address, "Oil Town," care of "Door-Ways," Aurora, Ill.

FOR SALE OR TRADE—290 acres of farming land, 175 acres in cultivation, good improvements. Plenty of water. Located 2½ miles from town in Grady County, Oklahoma. Will sell part or all on terms to suit at a bargain price. Address, "Chickasha," care of "Door-Ways," Aurora, Ill.

FOR SALE—Hardware stock, invoice about \$14,000, in city of 25,000 in one of finest farming sections in Iowa. This stock is first-class, well located, rent reasonable, good lease, good trade. Other business demanding individual attention, reason for selling. No trades considered. Address, Geo. Haw, Ottumwa, Iowa.

FOR SALE—One four-station Lamson Rapid Cash Carrier System complete, nearly new; also one well equipped Tin Shop. Address, Box No. 66, Dixon, Missouri.

FOR SALE—Hardware and General Store, fixtures, counters, display tables, show cases, scales, tinnerns' tools. Meyer's trolley store ladder, coffee mill. Address, Hardware Department, Box 715, Sioux City, Iowa.

POSITION WANTED—As traveling salesman for hardware or specialty line. Eight years' experience in hardware. Best of references. Employed at present inside, want outside work. Address, "West," care of "Door-Ways," Aurora, Ill.

FOR SALE—Hardware, plumbing and heating business in Northeastern Iowa. Good up-to-date stock of about \$5,000. Good town of 1,000; city water and electric lights. Plenty of plumbing and heating work ahead. Address, X33, care of "Door-Ways," Aurora, Ill.

The Richards-Wilcox Line

SLIDING DOOR HANGERS

**FOR PUBLIC BUILDINGS, HOUSES, AUDITORIUM
FOLDING DOORS, BARNs, WAREHOUSES,
ELEVATOR DOORS, SCHOOL HOUSES,
GARAGE DOOR EQUIPMENT.**

AUTOMATIC FIRE DOOR FIXTURES.

**OVERHEAD TROLLEY AND I BEAM CARRYING
SYSTEMS, DOOR CLOSER AND CHECKS,
CHECKING FLOOR HINGES.**

**ROLLING STORE LADDERS, STEEL
STORE SHELVING.**

**MANUAL TRAINING BENCHES,
WOODWORKERS VISES.**

SCREEN DOOR CATCHES.

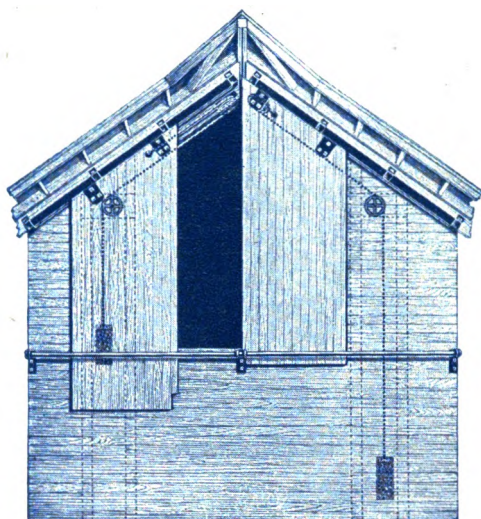
SLIDING DOOR LOCKS.

DOOR HOLDERS.

EXPANSION BOLTS.

STAY ROLLERS.

CORNER IRONS.



**No. 278 R-W Double Sliding Gable
Door Fixtures**

PROPERLY hung gable doors add to the barn's appearance, avoid possibility of a slamming door injuring the barn, assure an inaccessible part of the barn being always weather-proof.

R-W Gable Door Fixtures

Track is mounted parallel with the roof, and the hangers are attached in the same manner as on any barn door. Each door is counter-balanced by weights attached to a steel cable, which passes over two cable pulleys located above each door. Doors can be lowered or raised easily, permitting the use of all or part of the opening desired.

Steel guide holds bottom of doors against building when closed, and also acts as guide and stop when opened.

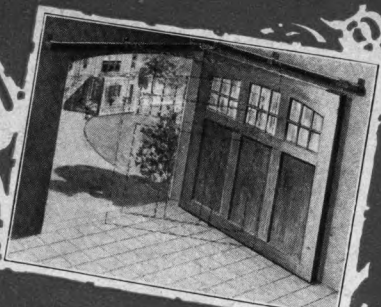
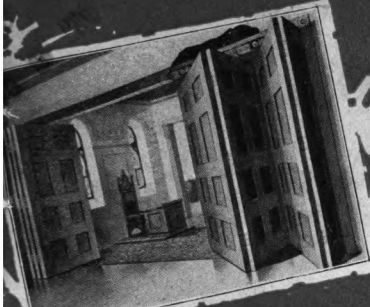
Richards-Wilcox



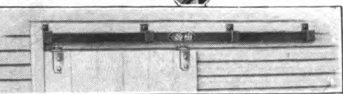
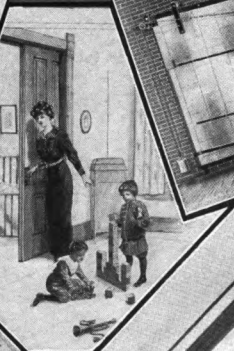
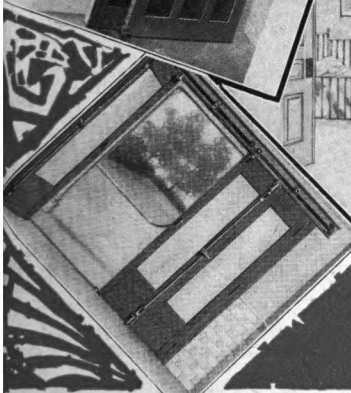
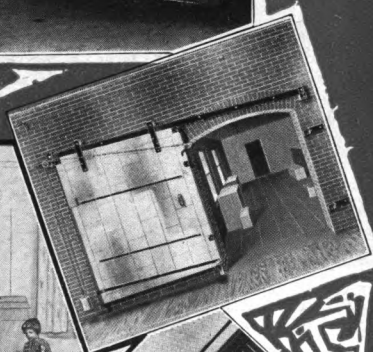
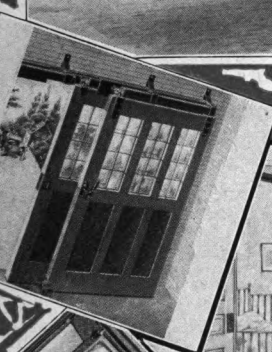
**MANUFACTURING CO.
AURORA, ILL. U.S.A.**



"A Hanger for Any Door that Slides"



RICHARDS-
WILCOX
DOORWAYS
AURORA
TRADE
MARK



AUGUST, 1916

The New Compensation Law—Good Will!

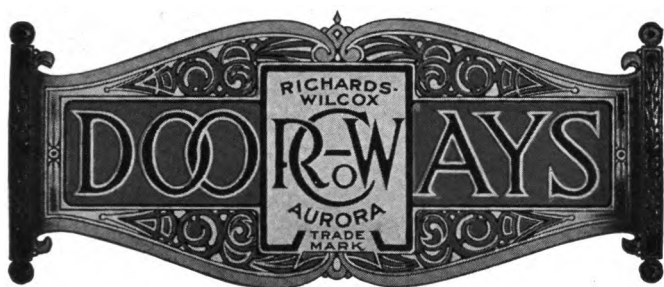
JUST as the wagon is a means of hauling a load, so are our goods the vehicles of your Service. If the wagon breaks down under the load, we resent it. If goods fail in service, you should resent it. But neither of us thinks of the wagon that is always serviceable—nor do we think of goods that meet our demands. They RELIEVE us of thought. And yet, the art, the care, the precision and experience put into those materials are what you wanted when you bought our goods—and these things are our Service to you—proving that your satisfaction is part of our plan; that your good will is necessary to us.

Everything that helps you do anything easier—that saves time, effort, annoyance—is your servant. Our goods were intended as your servants, although the goods themselves are but the outer garments of the service. And the servant who has been faithful to you, is one you wish to retain—or would recommend gladly. The greatest reward of Service is Good Will.

When you go on a railroad journey, you do not remember the rails, the ties, the telegraph poles, the varnish on the car, the signal-towers or the color of your ticket—but only your general impression of satisfaction. That is Service. And Service is what we bend every resource to meet—for your sake—and for our own sake, because you are satisfied, others seek us.

The motorists seek the well-paved, well-lighted streets—the shoppers find the brightest, busiest stores—and the amusement followers demand the tickets that must be reserved farthest in advance—because SERVICE proves itself by its own success—and begins ALWAYS by pleasing and helping those it serves. And because Success demands the price of Service, we serve ourselves best by serving you first, knowing that tomorrow and next year are only the CONTINUATION of Now.

Any boat may be safe in a calm, but the storm tests the quality of the plates, the strength of the bolts, the workmanship and honesty of a ship. And Use tests the integrity of goods. Your opinion, therefore, must be our chart and compass, and your good word can be only as broad as our service.



FOR AUGUST, 1916

Full of Good Sense, Good Humor, with a Hunch for R-W Products
Published Once a Month by

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

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Lee Mighell Vice-President
Milton D. Jones Sec'y & Treas.
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The Richards-Wilcox Canadian Company, Ltd. London, Ontario

Branches

85 Walker Street New York City
15 East Lake Street Chicago
50 North Lake Street Philadelphia
132 Pearl Street Boston
1735 Boatmans Bank Building St. Louis
321 Plymouth Building Minneapolis

Volume 4

D. M. KAGAY, Editor

No. 8

Working Together

THIS old world seems a mighty pleasant place to live — when everything moves smoothly in order, when we are all working together. Why isn't it possible for all of us to beat the insurance companies life limit? Three score years and ten is a nice, respectable age, but only about half of us are allotted that much of life, the other half drop off at the various year stations

whenever their number is called. And there are very few of us realize how much more life can be placed between those year stations, and how those year stations can be thinned out by each doing his part, by working together.



“’Tis Deeds Must Win the Prize”



The worries and troubles of business are plenty, even under most perfect conditions, but if each party to the transaction does his part the profit will be greater and the worries and troubles will be less for all concerned.

The buying public have been educated to expect service. Whether their purchase be large or small they demand prompt, courteous attention, and the benefit of the combined experience of the retail seller and the manufacturer centered on their own particular needs. And as they emphasize their demands by either doing business with you or with somebody else, they get service whatever the cost.

Knowing, therefore, what is expected, all wise men prepare and by making this need universally known, all concerned, from the source of supply to the one making the final sale, work together for the consumer's benefit.

Unless all concerned have a clear, concise understanding of the goods and are able to tell why they are the best to use, when to use them and where their installation will give the best results, there is a poor connection, the working together idea is only in theory and not practical.

Materials—Any hardware that is used in the construction of a building, the replacing of which would involve



“Deeds are Fruits, Words are but Leaves”



trouble and expense, must be properly designed and constructed, made of the proper quality, size and grade material to perform its work satisfactorily. This begins with the raw material. A product must be well known and manu-

factured in large numbers to warrant buying the raw material in sufficient quantities to get the best at the lowest price.

Experience — Even the best of raw material won't answer the purpose, unless the manufacture of the hardware is directed by experienced managers and carried through by experienced workmen.

Complete Stock — When the buyer makes his purchase he wants what he buys, when he buys it. This means a complete stock or close connections with the manufacturer where a complete stock is carried at all times ready for rush shipment.

Prompt Shipments — It is always wisest to watch stock carefully, and have a proper supply on hand, but the next best thing is to know that prompt shipment is a motto of the manufacturer from whom you buy.

Advertising — You have, no, doubt, attended a convention



"Put a Stout Heart to a Steep Hill"



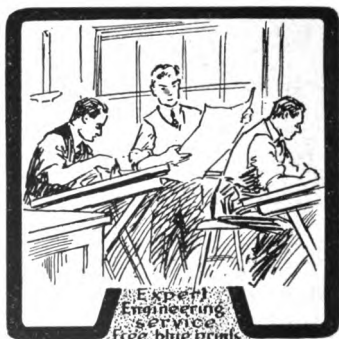
where various speakers gave you the benefit of their observations and experience. That is the work carried on, all the time, by the trade papers. Each class of business men has one or more trade publications that specialize on their

trade, and are consequently carefully read. These papers, collectively, go to a large section of the buying public. When the story of the goods you carry in stock is told in these trade papers it helps move the goods and remove some of the worries and troubles of business.

Technical Assistance — Even the best informed bump up against a problem sometimes, the solving of which would be gladly passed on to someone else. When the subject is somewhat technical the Engineering Department of the manufacturer is the best place to send the problem.

Now the lumping together of all these various parts, so that all concerned are benefited is working together.

The Richards-Wilcox Organization has been built up on this plan, and into this organization has been taken all with whom we do business. This big family, working-together spirit is good policy because it saves gray hair, wrinkles, worries and troubles.



"Industry Is the Parent of Success"

When a Workbench Is Needed

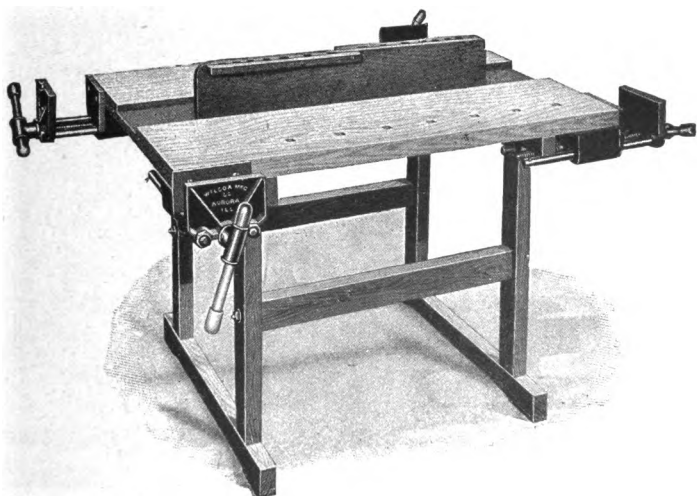
IN THE manual training school, the home or the work-shop, a handy bench and a good vise or two are needed. Good workmen require good tools — why not see that your customers have the best?

R-W Manual Training Benches and Vises

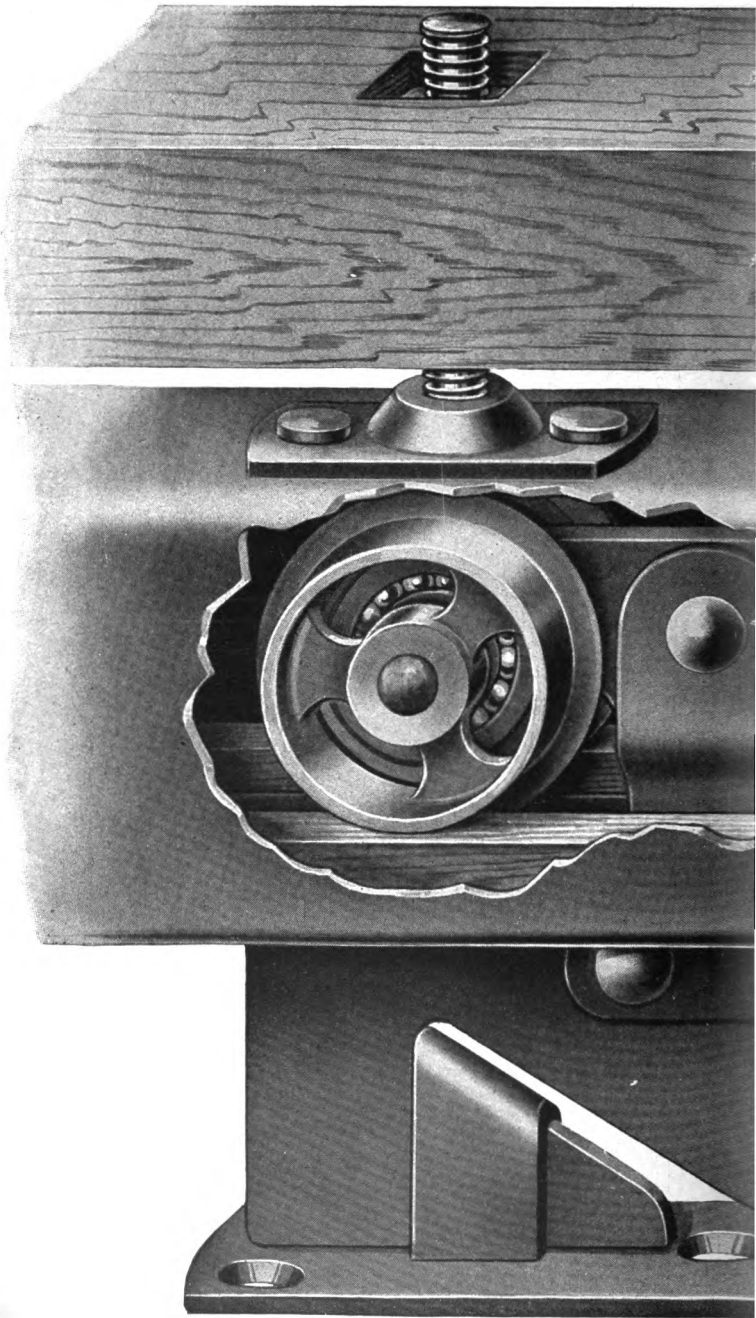
The frame and top from selected kiln-dried hard maple, filled and varnished. More easily assembled than any other type.

Can be had with one, two or four vises, or plain without vise.

Let us explain our proposition.



An Architect



t Says — The advantages and conveniences of sliding doors in a modern home are numerous.

First — Several rooms can be made into one large room on occasions when one wishes to do so, by opening the sliding doors.

Second — Saving of space in the rooms, the doors sliding between the walls.

Third — No squeaking of hinges.

Fourth — May be left open part way without danger of slamming.

Fifth — No wall door-stops required.

Sixth — No draft or dust made in opening or closing.

Seventh — Furniture can be moved from one room to another without marring.

Eighth — Danger of children as well as grown persons, getting fingers pinched eliminated.

Ninth — No danger of bumping into the sharp edge of open doors while walking in the dark.

Tenth — The Richards-Wilcox sliding doors, having steel ball-bearings, are noiseless, and are the most serviceable and economical door hangers in the market, without exception.

Eleventh — For the looks, they are worth many times the small extra cost — over the unsightly swing doors — besides the advantages and conveniences.

Twelfth — Rooms entirely opened up are more easily heated from other rooms, eliminating the draft occasioned by the opening of an old-style door.

Treat yourself square — get our proposition.

No. 221 'R-W Advance House Door Hanger



Free to the Trade

If you want to sell your business or partnership.

If you want to buy a business or partnership.

If you want an employe.

If you want a position.

A new classified ad. section in "Door-Ways." A twenty-five to fifty-word ad. may open to you just the opportunity you want.

Copy must be in our hands by the 15th of the month preceding the date of issue. Copy for December, 1916, issue we must have by October 15th, 1916.

In offering this service, free, to the trade, it is our desire to be the means of bringing together those of our readers who wish to make a change.

Copy can give the name and address of the advertiser, so he will receive the reply direct, or be keyed so the reply comes direct to us, for prompt mailing to the advertiser.

Following are samples of ads. which are sure to bring results:

WANTED — Young man with architectural and sheet metal drafting ability, or a young man that has had previous experience as a metal window, fire door and sheet metal salesman and who can work from architect's plans. We would prefer to secure the services of one that can handle both propositions. In your answer state your age, previous experience, salary you believe you can command and give references. Do not apply unless you are determined to stick and progress with a growing concern. Address, Willis Mfg. Co., Galesburg, Ill.

WANTED — Architect, ten years' independent practice in New York City, desires to enter selling end of any manufactured product entering into construction of building. Would consider purchase in partnership or good position that needs a trained, young and active man. Address, "D. I. R.," care of "Doorways," Aurora, Ill.

WANTED — By young married man, 36 years of age, with fourteen years railroad experience, position as Chief Clerk. Am college graduate in Civil Engineering. Three years' experience as Supervisor of Track and Buildings, and eleven years' experience as Chief Clerk to Chief Engineer. Can give A-1 testimonials. Address, E. L. C., care of "Door-Ways," Aurora, Ill.

Remember, this is free to the trade and is limited to wants as stated above.

Send in your copy.

BARGAINS WRITE FOR PRICES

ABOUT fifteen tons Galvanized Wasters, 2 inches to 6 inches wide, 36 inches to 120 inches long. Good stock.

About twenty tons 14-gauge Blue Annealed Steel, 2 inches wide, 48 inches to 120 inches long.

Fifty bars soft steel, $\frac{3}{8}$ inch by 7 inches by 12 feet long.

One 12-inch Sensitive Drill, Knecht Bros.' make. Just the thing for garage or light machine shop.

One 30-inch Wood Planer, extra set knives, additional sectional feed roll. Run less than six weeks. Buss Machine Works make.

One 24-inch Sectional Feed Roll Wood Planer, American Woodworking Machinery Company make.

"Care and Diligence Bring Luck"

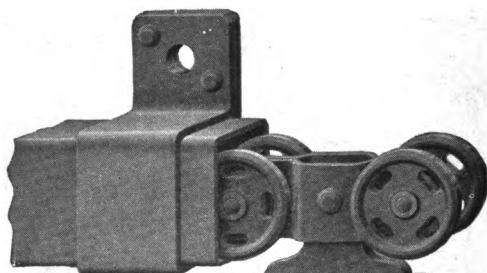


HIGHER in Service not Lower in Price

Door hangers are bought for use
— not possession. R-W door hang-
ers are made to be higher in service,
not lower in price.

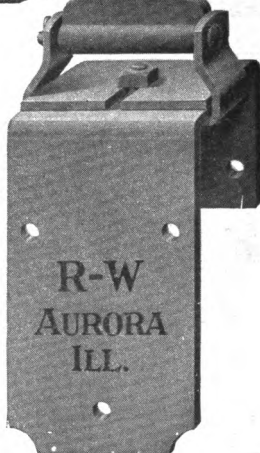
Cheap door hangers are tem-
porary and never give good service.
For permanency buy

No. 321 R-W Tip-Top Door Hangers



PATENTED

**For doors
weighing
approximately
400 pounds.
Runs in No. 31
style trolley track.
Roller bearings.
Lateral adjust-
ment only.
Swing-out feature.
Write for
prices.**





OCTOBER-1916

The Most Serviceable Discount on Earth —

THE *greatest commercial compliment* that can be paid to any business man is: "He always *discounts* his bills." That is the *place of honor above* all the A. A. A. 1 and other credit rating signs.

Commercial discounts may amount to 2% or run much higher, depending on circumstances. A discount of 2% in ten days is equal to about 72% on a yearly basis.

If this rate signifies commercial wisdom, how about a discount of 100% or 200%? Often the *saving* of an article totals this much or more. An article that sells for 5 cents may be *worth* many dollars in the *convenience* it brings about. Simply because it does not issue a check whenever it *saves* money, or money's equivalent, is no sign that saving is not present.

The *greatest discount* in all the world is the purchase of whatever *meets a need*, and thereby *wipes out the inconvenience* of that need unfulfilled. An *unsatisfied* need is a perpetual source of *loss* — and consideration of that bedrock truth should be a deciding factor in *every* buyer's mind.

It follows that whenever it is necessary to look after a need, that need *ceases* to exist *only* when it has been met 100%. No person is perfectly healthy who is *half ill*. No want has stopped its existence unless it *goes entirely*. That is the *real object* of a purchase.

Incidentally, no purchase is a folly unless it is *useless*. Whenever a purchase is unwise, we may be certain that it was made for purposes *other* than meeting a need.

The man who pays too little is the one who really pays too much — because anything under the *right* thing remains partly wrong. A delayed purchase is much worse than not taking a discount. It is about as bad as signing a judgment note, because *needs*, like other obligations, have their *maturity* and their periods of *foreclosure*.

When your customers need door hangers, you are increasing the value of their property by selling them Richards-Wilcox Door Hangers.



FOR OCTOBER, 1916

**Full of Good Sense, Good Humor, with a Hunch for R-W Products
Published Once a Month by**

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

Officers

W. H. Fitch Pres. & Gen'l Mgr.
Lee Mighell Vice-President
Milton D. Jones Sec'y & Treas.
P. L. Hoffman Superintendent
The Richards-Wilcox Canadian Company, Ltd.

Branches

85 Walker Street New York City
15 East Lake Street Chicago
50 North Lake Street Philadelphia
132 Pearl Street Boston
1735 Boatmans Bank Building St. Louis
321 Plymouth Building Minneapolis
London, Ontario

Volume 4

D. M. KAGAY, Editor

No. 10

The Garage for the Private Car

**A Well Designed Example with Some Unusual Features of
Convenience—Details of Construction**

(Copyright The Building Age)

THE phenomenal development of the automobile business which the country is witnessing is reflected in a measure in the impetus which has been given to garage construction, more especially perhaps that for the private cars of the suburbanite and the dweller in the rural districts. At the present day the car of whatever size serves for the purpose of transit for the business man, whether it be to and from commuting stations in the country, or to and from the city itself. It is at the same time a family utility which is more and more being appreciated, and a garage for its proper housing becomes at once a necessity on the part of the owner. That they are of varied design and construction goes without saying, for these features depend in large measure upon the number of cars the garage is intended to contain, and whether it is purposed to embody in connection therewith living accommodations for the chauffeur.

As being of interest in this connection we present herewith a picture and floor plan of the garage. The garage is built on a side hill, which permits an entrance in front at grade, as shown in the accompanying picture, also an entrance to the cellar at grade in the rear.

Want Ads—Page 12-13

tion between a small and a large room, and when not in use slide back into a pocket at the right. The pocket is built similar to that for an ordinary sliding parlor door, except that in all cases the sides should be covered by ceiling or other material to present a finished appearance, as in Figs. 2 and 3.

Door A laps the jamb at the pocket side and the two doors lap each other at the center of the opening. The track for door A extends only half-way across the opening, but door B required a track entirely across the opening.

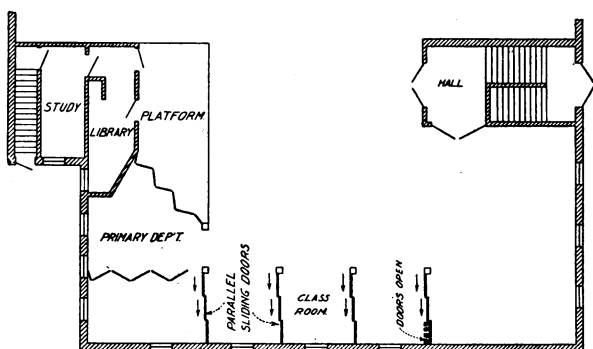


FIG. 1 — PLAN OF SUNDAY SCHOOL PORTION OF THE CHURCH

It is not necessary to slide all the doors one way, as they can frequently be arranged as in Fig. 3, where two doors slide to the right and two to the left. In this way an opening of considerable width can be obtained by the use of only two lines of track, and only two lap joints of the doors are visible. A pocket is here shown at each side of the opening; but this is not always necessary and, indeed, there are many cases, such as in Fig. 1, where it is better to omit the pockets and use instead a stationary panel or door. This stationary door is built exactly like the sliding doors, but instead of hanging it on a track it is attached permanently to the floor and soffit. The sliding doors when opened

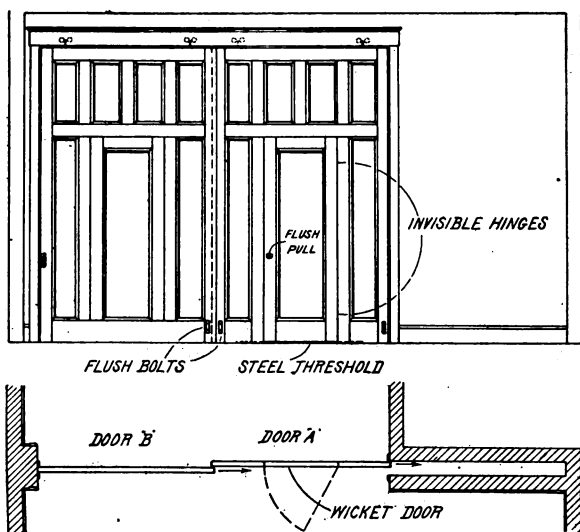


FIG. 2 — PLAN AND ELEVATION OF A PARALLEL PARTITION WITH WICKET DOOR

occupy positions alongside the stationary door. This method results in a considerable saving of floor space and is particularly adapted for the smaller partitions such as are used between Sunday School class-rooms.

Partitions separating large rooms usually require a service or passage door between the rooms. If the doors are large, as in Fig. 2, the wicket door is the best solution. The doors should be built so that the wicket door will not destroy the harmony of design in all the doors. This is exemplified in Fig. 2. Hang the wicket with invisible hinges so that there will be no projections to interfere with sliding the larger door. The lock should be fitted with flush pulls instead of knobs.

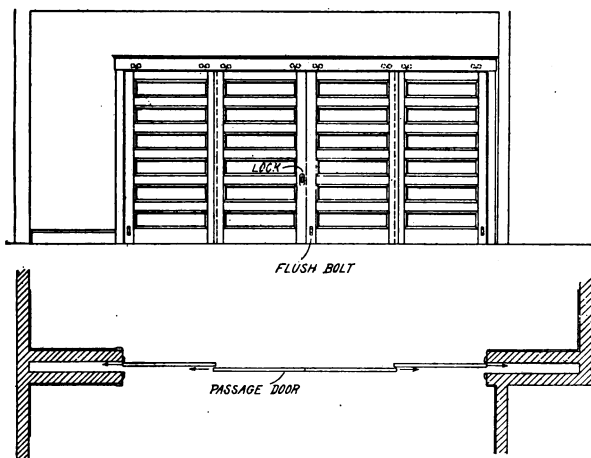


FIG. 3 — ONE OF THE SLIDING DOORS USED AS A PASSAGE DOOR

A steel bar $\frac{3}{8}$ inch thick is used for a threshold. This is fitted into the bottom of the large sliding door A, and serves to tie the door together and helps to hold it in shape. A threshold strip with a double bevel or rounded upper surface is preferable.

One of the sliding doors can be used as a passage door if it is not too large. This is shown in Fig. 3, where one of the center doors is used for this purpose. A sliding door lock or latch is used to lock this door to the next one, which is held firmly in place by a flush floor bolt.

Details of the overlapping portions of the doors, together with a horizontal cross-section of the pockets, are given in Figs. 4 and 5.

The style of lap shown in Fig. 4 is very simple and serviceable. Wedge-shaped strips are attached to the sides of the door and are so arranged that when doors are withdrawn the distance intended these strips interlock, prevent the further movement of the doors and made a tightly closed joint. It is essential that these strips be made wide enough

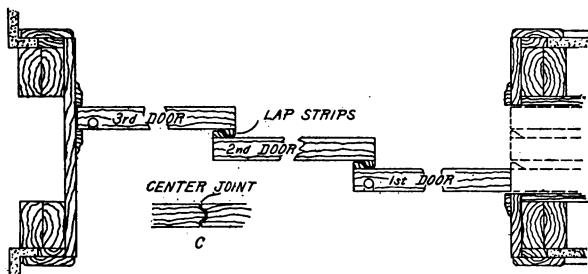


FIG. 4 — DETAILS OF THE OVER-LAPPING PORTION OF THE DOORS

to permit a firm attachment to the doors, as they are particularly susceptible to damage from rough usage. At C is detailed a tongue-and-groove joint suitable for use with these doors where they come together at center of opening, as in Fig. 3.

In Fig. 5, astragals are used on the edges of the doors. This method is often used with satisfaction, but has the disadvantage that no definite stop is provided. This will be more fully discussed in a later paragraph. At D astragals for the center joint for doors as in Fig. 3 are shown. For doors all sliding one way, as in Fig. 2, the astragal on the outer edge of the last door enters between two door stops attached to the jamb, as detailed at E.

A typical vertical cross-section through the head jamb is shown in Fig. 6. The tracks are attached to the header, which is secured to the studding just high enough so that the bottom of the track brackets will

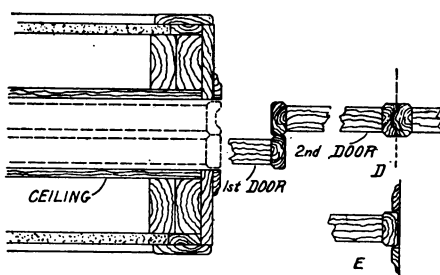


FIG. 5 — HORIZONTAL CROSS-SECTION OF POCKET

be flush with the bottom of the trimmers. For doors $1\frac{1}{2}$ inches in thickness and not over 300 pounds in weight this distance will be about $3\frac{1}{4}$ inches. Hangers for heavier doors require more space. Care in lining up these parts while roughing in the partitions will save considerable time when applying the trim. It is sometimes convenient to hang the tracks directly to the lower chord of a truss or to the ceiling joists, but the exact method must always be decided by conditions met with in the particular build-under construction.

The casing and head trim are applied in the usual manner, but the soffits frequently present some difficulty to the builder. To make a neatly finished job the bottom of the tracks should be entirely covered excepting narrow openings through which the pendant bolts of the door hangers move. The outside soffit pieces are, of course, easily applied.

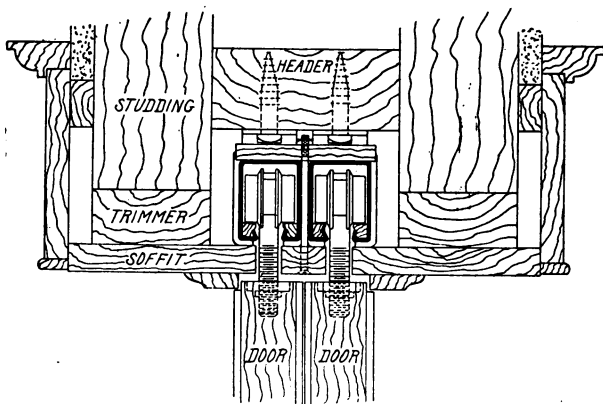
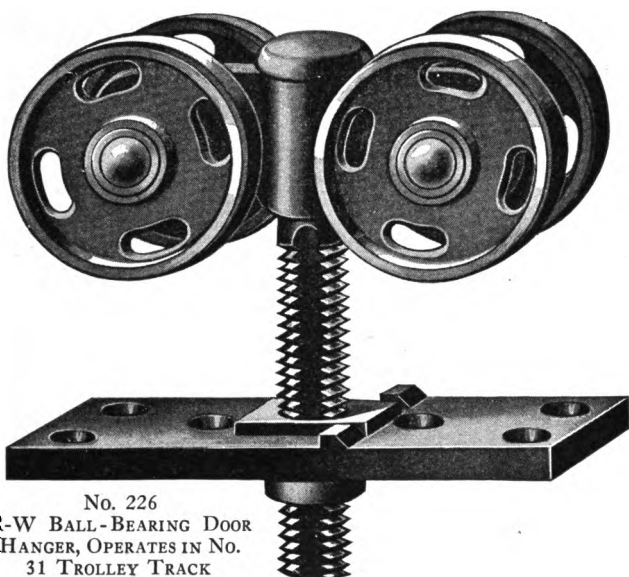


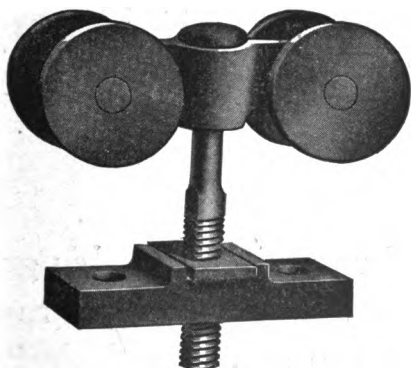
FIG. 6 — TYPICAL CROSS-SECTION THROUGH HEAD JOINT



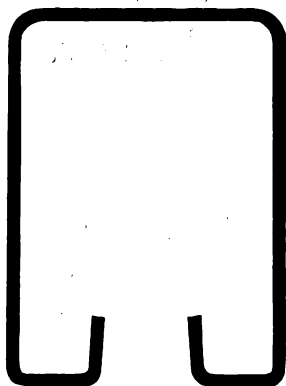
No. 226
R-W BALL-BEARING DOOR
HANGER, OPERATES IN NO.
31 TROLLEY TRACK

When the doors to be handled in the sliding partitions are of weight up to 200 or 300 pounds each, and other conditions are right

These R-W Door Hangers
will answer the requirements to the satisfaction of all concerned. How the doors work is the proof of the pudding.



No. 126
R-W BALL-BEARING DOOR
HANGER, OPERATES IN NO.
30½ TROLLEY TRACK



FULL SIZE CROSS SECTION OF
NO. 30½ TROLLEY TRACK



If they're building a church

If there's an assembly hall, theatre
tion—go to it! Every architect and
the advantages of sliding partition

Richards-Wilcox

According to the requirements, hangers and
Our engineering and special departments and
what equipment to use. *Don't hesitate—*



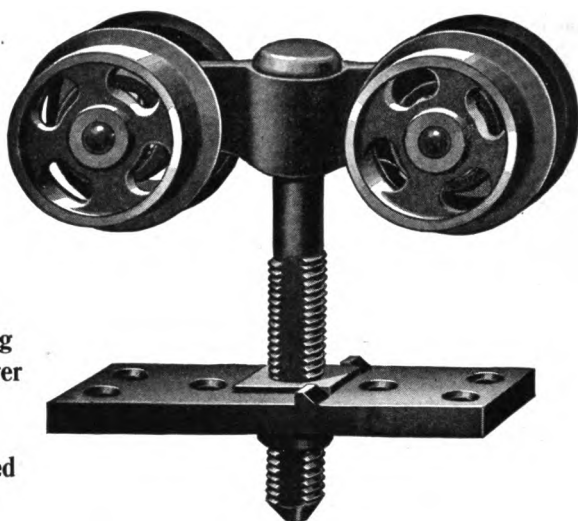
n town

or a school in course of construc-
and builder should know all about
in such buildings.

Door Hangers

track to suit can be found in the R-W line.
e always at your service to help you decide
write any time.

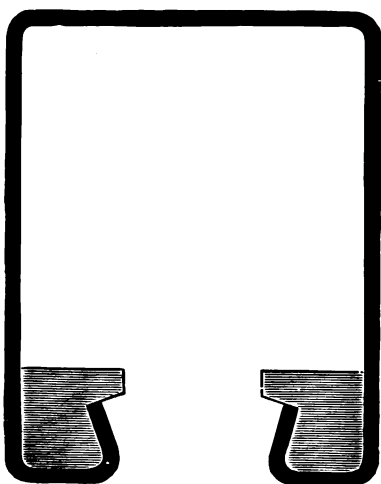
**No. 626
R-W
Invincible
Ball-Bearing
Door Hanger
Operates
in No. 526
Wood Lined
Trolley
Track**



PERFECTLY NOISELESS AND EASY RUNNING

Sliding partitions have met with wide spread approbation — the idea has proven its worth — but as with everything else, its application and the equipment to be used is subject to the decision of the user.

For that reason, the R-W Line includes a "a hanger for any door that slides."



**Full Size
Cross Section
of
No. 526
Wood Lined
Trolley
Track**

Continued from Page 4

The center strips are more difficult to apply, but a suitable scheme is shown in Fig. 6. The soffits are held in place by flat-headed stove bolts which pass up between the tracks and through blocks of wood which rest on top of the tracks. This does not necessitate setting the tracks farther apart, because the bolts can be placed at intervals between the points where brackets occur and they take up no more space than the thickness of the track brackets.

Another method is to have the bottom of the track brackets drilled and tapped for small machine screws. The soffits can then be screwed directly to the brackets, but care must be taken to use screws just long enough to go through the brackets without lifting the tracks out of place.

Tracks of the trolley or box-shaped type are generally used. These are made in a variety of sizes to suit doors of any weight. The track

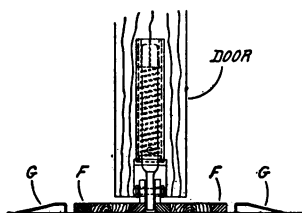


FIG. 8 — VERTICAL CROSS-SECTION

shown in Fig. 6 is wood-lined and practically noiseless, and is therefore preferable for the lighter-weight doors. The hangers are ball-bearing or roller-bearing, and are vertically adjustable.

Floor guides may be used to steady the bottom of the doors. This is particularly desirable where the doors are large. These are designed to compensate for any irregularity or unevenness in the floor. A suitable article is shown in Figs. 7 and 8. The flat floor strips F-F and the beveled strips G-G are of steel, and form the guide slots in which the rollers operate. The space between the steel strips is filled in with $\frac{3}{8}$ -inch hardwood flooring, so that the top of the guides finish flat without any projections. If the floors are covered with $\frac{3}{8}$ -inch hardwood flooring the beveled strips may be omitted and flat guide strips used all around. The guides will then be flush with the floors of the rooms.

The rollers are invisible, being entirely inclosed in the door. They are kept in contact with the guide strips by spring pressure.

A sliding door lock is shown applied to door B in Fig 2, securing it to the jamb. Flush bolts are used to secure the bottom of the doors to the floor. When floor guides are used only one bolt or lock is required for each door. This should be set in the stile of the door farthest from pocket so that it will not interfere with the guide strips in the floor. The end of these strips should be a couple of inches back from the edge of the door to allow space for the plate with which the flush bolt engages. A flush pull set into each door will add to the convenience of operation.

To be continued.

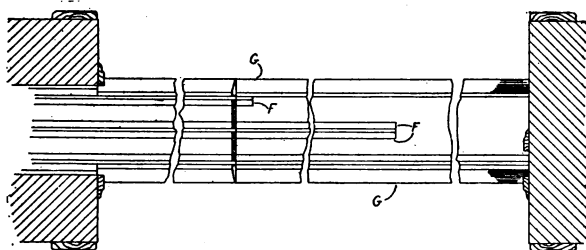


FIG. 7 — PLAN OF FLOOR GUIDE FOR STEADYING THE BOTTOM OF A DOOR

The Proof of the Pudding



HEATH & GOVE
ARCHITECTS
TACOMA, WASHINGTON

We cannot tell you how much we have enjoyed the photographs of your office force, which have been coming to us the past year. Mr. Heath has raised one family, but Messrs. Gove and Bell have not yet undertaken the job. However, all three of us are equally appreciative of beauty, and with our thanks for your clever advertising, we wish you success.

HEATH & GOVE, by GEORGE GOVE.

EDW. A. CRUMB
HARVARD, ILLINOIS

The Manual Training Benches equipped with head and tail vises purchased of you last year have given entire satisfaction and I thoroughly recommend this outfit. EDW. A. CRUMB.

AUGUSTUS EICHHORN
ARCHITECT
ORANGE, NEW JERSEY

I know enough of your Door Hangers — both for Parlor and Barn — that if used, the doors will slide merrily on their tracks, and when the occasion offers, will use them again.

A. EICHHORN.

ALBERT SHIPPEL
ARCHITECT
MANKATO, MINNESOTA

I have specified your door hangers for the past four years with good results.

ALBERT SCHIPPEL.

E. C. HODGINS & SON
GENERAL CONTRACTORS
BANGOR, MAINE

I will say that your door hangers work to perfection; nothing better on the market.

E. C. HODGINS & SON.

This Is the Sliding Door Age

EVER since shelters were constructed for the convenience, comfort and use of man or beast, or men's possessions, the proper closing of the entrance ways, and doorways within the building has been a problem of great importance.

The absolute need of a secure, weather-proof and thief-proof method of closing the openings brought about various methods of hanging and securing the doors. However, from the time when doors were hung on a piece cut out of a boot leg down through the various hinge arrangements, there has been a steady advancement until the present modern method of easy sliding door hangers and track was reached.

About the year 1880 this company took up the manufacture of door hangers and track, which were at that period coming into great prominence. Since that time, steady advancement has been made in the designing and construction of door hangers and track, possibilities of their application to all doors in every kind and class of building has been most carefully investigated and worked down to perfection until we can safely say we can furnish "a hanger for any door that slides."

Our friends in the profession and trade can therefore safely specify and recommend sliding doors be used in the great majority of cases.

Sliding doors may be used:

In the home for closing large openings, bed-room doors, closet doors and pantry doors where a conjection of doorways would otherwise mean confusion and inconvenience.

In the barn, for the entrance door, hay mow gable doors, and all through the buildings.

On the farm for implement houses, granaries, corn cribs, power house, creamery.

In the garage for private and public use, the sliding door is the best door arrangement.

In schools, churches, theatres, assembly rooms, the sliding partition doors hung in accordion, flush or parallel door arrangements.

In office building, etc., for sliding elevator doors.

In freight houses, warehouses, etc., for straight sliding, parallel or overhead sliding doors.

In factories for fire doors, warehouse doors, entrance gates, department partition entrances.

In foundries, factories, warehouses, garages and wherever material is to be transported, overhead trolley and I-beam carrying equipment.

In lumber and coal yards for entrance gates, air drying sheds, coal shed unloading windows and doors.

The manner of hanging doors, the kind and style of hanger and track to use may vary to meet existing conditions—but the fact to be remembered is that by making the door a sliding door will add to the convenience and comfort of the users of the building.

When specifying R-W Hangers and Track, you are not limited to only one or two hangers where conditions must be altered to suit the hanger. The R-W line is complete. The door requirements of each class of building has been analyzed, and hangers and track designed to suit the conditions.

Why not have our Engineering Department work with you on your door hanging problems?

Free to the Trade

If you want to sell your business or partnership.

If you want to buy a business or partnership.

If you want an employe.

If you want a position.

A new classified ad. section in "Door-Ways." A twenty-five to fifty-word ad. may open to you just the opportunity you want.

Copy must be in our hands by the 15th of the month preceding the date of issue. Copy for January, 1917, issue we must have by November 15th, 1916.

In offering this service, free, to the trade, it is our desire to be the means of bringing together those of our readers who wish to make a change.

Copy can give the name and address of the advertiser, so he will receive the reply direct, or be keyed so the reply comes direct to us, for prompt mailing to the advertiser.

Following are samples of ads. which are sure to bring results:

WANTED — Young man with architectural and sheet metal drafting ability, or a young man that has had previous experience as a metal window, fire door and sheet metal salesman and who can work from architect's plans. We would prefer to secure the services of one that can handle both propositions. In your answer state your age, previous experience, salary you believe you can command and give references. Do not apply unless you are determined to stick and progress with a growing concern. Address, Willis Mfg. Co., Galesburg, Ill.

WANTED — Architect, ten years' independent practice in New York City, desires to enter selling end of any manufactured product entering into construction of building. Would consider purchase in partnership or good position that needs a trained, young and active man. Address, "D. I. R.," care of "Door-Ways," Aurora, Ill.

WANTED — By young married man, 36 years of age, with fourteen years railroad experience, position as Chief Clerk. Am college graduate in Civil Engineering. Three years' experience as Supervisor of Track and Buildings, and eleven years' experience as Chief Clerk to Chief Engineer. Can give A-1 testimonials. Address, E. L. C., care of "Door-Ways," Aurora, Ill.

WANT POSITION — An architectural draftsman, 23 years of age, desires position with a progressive firm. Five years' experience in designing and erecting reinforced concrete, steel and New England Mill Construction buildings of all kinds. Address, J. W. I., care of "Door-Ways," Aurora, Ill.

WANTED POSITION — By married man with 18 years' architectural practice and supervision of all kinds and classes of buildings. Several years' experience designing, estimating and making sash, doors, interior mill work, etc. Desire connection with contracting, manufacturing or building materials company. References if required. Address, "W. J. R.," care of "Door-Ways," Aurora, Ill.

WANTED POSITION — As architectural draftsman by a young man of 22. Technical training. Three years' experience in architect's office. Neat tracer and good letterer. Can give best references from New York architects. Open for immediate engagement. Address, "J. J. O.," care of Door-Ways," Aurora, Ill.

Remember, this is free to the trade and is limited to wants as stated above.

Send in your copy.

Personal Cost System

I know an Agent, once poor as Lazarus, now wealthy as the "rich man."

His philosophy of economy bulks big with thought. He says:

"Once I was a prodigal waster. Naturally I fell upon lean times.

"Flat? Why, a flounder was a rotund freak in comparison.

"How I changed? This way:

"A nickel is a year's interest on a dollar.

"To spend a nickel is like drawing a dollar out of the bank.

"To spend \$5.00, a year's interest on \$100.00, is like drawing \$100.00 from my bank account.

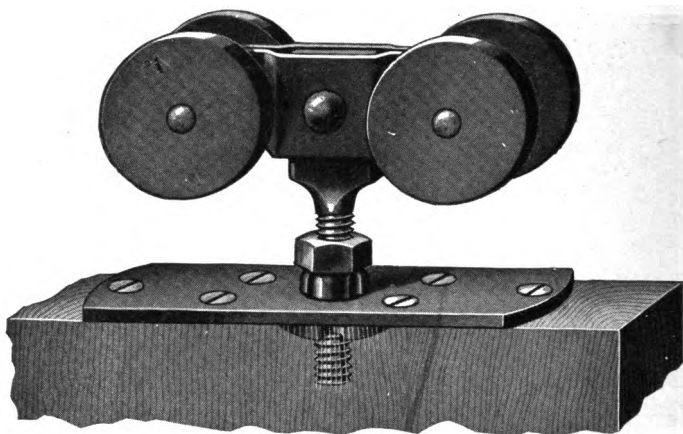
"Further, I checked over all my addictions, and now, if a 'rainy day' came — —

"I could face disaster without a single extravagant habit.

"And that which would be a flood of disaster to most men, would be to me only an April shower.

"Because I not only have my 'stake,' but my stake stakes me.

"I have enough money in a savings bank to pay \$2.00 a day interest, and what more does any man need?"



**No. 140 R-W Reliable Roller Bearing Door Hanger. Operates in
Nos. 31 or 33 Trolley Track.**

Designed especially for parallel doors when it is desirable to attach the hanger to top of door, which is the proper way in sliding partition doors.

No. 140 R-W Reliable Door Hanger

As it is made in two sizes for use in No. 31 or No. 33 Trolley Track, heavier doors can be handled. Both sizes can be furnished with fibre or metal wheels.

Richards-Wilcox



**MANUFACTURING Co.
AURORA, ILL. U.S.A.**



DEC 2 1916



DECEMBER 1916

Putting Brains Into Materials

GOODS are like the constitution: If brains were not put into them, they would lack Durable Merit. Brains supply what material cannot furnish. The dictionary contains more words than we need. Brains put them together and got sense out of them. Brains operate in the same way on materials. The brain-power determines the value.

Tools can't think. They are simply vehicles for brains. Excellence of equipment aids brains — but the knowledge and skill of workmanship decide results.

The world produces wise men and otherwise men. The ne'er-do-well can't be a great statesman, and a shiftless workman on a pay-roll can't produce good work. Brainy workmen are as important in their line as statesmen are to nations.

Brains convert \$20.00-a-ton iron into \$3,000.00-a-ton steel tools. You buy brains more than materials. Judge goods by brains — because workmanship delivers the greatest service.

Thoughtless effort squandered twenty years and half a billion dollars on the French effort at building the Panama Canal. Brains gave America a better canal in ten years at less cost. Brains put quality into all results of capable workmanship.

You can't think into goods what workmen failed to think into them. If the brains were not there, your purchase is costly at any price.

The telegraph, telephone, wireless and other inventions are made up of what existed always. Brains used materials and forces properly. Brains in all goods add to the material substance of those goods.

In 5000 B. C., the world had everything it possesses now — except brain-power. Brains have carried humanity from zero to 100%. Everything you buy is worthy only according to the result of brains it contains.

Two artists may use the same materials. One produces a daub — the other a masterpiece. Brains in workmanship make every article a masterpiece. Brains satisfy where mere materials might fail.



FOR DECEMBER, 1916

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Volume 4

D. M. KAGAY, *Editor*

No. 12

Arrangement of Sliding Partitions

The Accordion Folding Door Partition Which Is
One of the Three Principal Types—Various Details

Copyright Building Age

By E. J. G. Phillips, *Our Engineer*

(Continued from November)

THE accordion folding door has proved itself a valuable asset to the up-to-date church and Sunday school room. Its use has made the separate class room possible with the minimum expense and it can usually be applied to old buildings with little difficulty as well as to new buildings. The large number of churches which are being remodeled and fitted with this type of door bear witness to the foregoing statement. Fig. 9 is the plan of a large Sunday school room showing the extensive use of this type of partition. The interior views, Page 6-7, showing a number of accordion partitions, give a good idea of the appearance of the doors in actual use.

All of the doors can be folded to one side or they may be divided at the center and half the doors folded to each side of the room, as in Fig. 10. When opened, the doors fold compactly against the wall and no pocket is required. A half door is required adjoining the jamb toward which the doors fold. By reference to Fig. 10 it will be noted that where all the doors fold to one side one half door is required, but when divided at the center and folded toward both sides two half doors are necessary. A sufficient number of doors should be used so that no door will exceed 3 feet in width. The half door, so-called, is really less than half the width of the full size doors. The exact width of doors is determined by four conditions: First, the distance from the center of the hinge pin to the edge of the door; second, by the thickness of doors; third, by the number of doors, and fourth, by the style of hanger used.

The correct dimensions may be readily obtained by using the following formula, which provides for the minimum projection of the hinge pin from the door, thus allowing the doors to fold as compactly as possible, and it is based upon the use of Richards-Wilcox door hangers.

Width of full-size doors =

Clear width of opening "H" + "B" (from table Fig. 13)

number of full size doors + $\frac{1}{2}$

Width of half doors = $\frac{\text{width of full size door "B" + } \frac{1}{2}}{2}$

2

If the doors are to fold toward both sides, as in the upper plan, Fig. 10, consider the distance from the center line of opening to jamb, as clear width of opening *H* and divide by the number of doors which are to fill this space.

As an example, consider an opening 12 ft. wide, i. e., the space which the doors actually occupy with four full size doors $1\frac{3}{4}$ in. thick and using loose pin butts. Adding *B* from the table, which is $1\frac{1}{4}$ in. to 12 ft., equals 12 ft.

$1\frac{1}{8}$ in. or $145\frac{1}{8}$ in. This divided by $4\frac{1}{2}$ equals $32\frac{1}{4}$, the width of each full size door. Dividing this by 2 equals $16\frac{1}{4}$ in. Subtracting $1\frac{1}{4}$ in. from $16\frac{1}{4}$ in. equals 15 in., the width of the half door.

All the full size doors must be exactly the same width, and the sides must be exactly parallel and at right angles with the top and bottom. Special care in regard to these details, as well as in locating all the butts so the hinge pins will be exactly the same distance from the edge of the door, will help greatly in producing a set of doors which will operate in first-class manner.

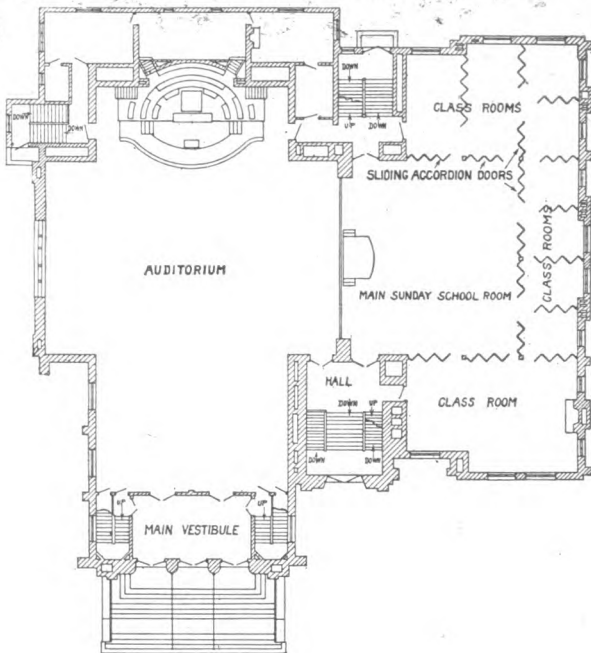


FIG. 9 — PLAN OF A LARGE SUNDAY SCHOOL ROOM

The use of doors having tongue and groove meeting stiles is recommended, as this will produce a much tighter partition. Doors of any standard thickness may be used, this depending upon their size and other special conditions.

Loose pin butts are generally used to hinge the doors together, but tight pin butts may be used if it is essential to fold the doors into the minimum space. As may be seen from the table, Fig. 11, the use of tight pin butts enables the hinge pin in some cases to be set very close to the edge of the doors because it is not necessary to make allowance for the removal of the hinge pin. No particular advantage is claimed for the loose pin butt except that it is somewhat easier to remove the doors. Butts in the sizes listed are considered suitable for ordinary wood doors of the given thickness, but for extra high doors or doors constructed of materials which considerably increase their weight, a larger size door hanger should be used, and this necessitates the use of larger butts, as given in the table in the line corresponding with the hanger to be used. In calculating the width of the doors, the quantity *B* should be taken from the same line in the table in which the size of butt is given and not from the line which gives the thickness of the door.

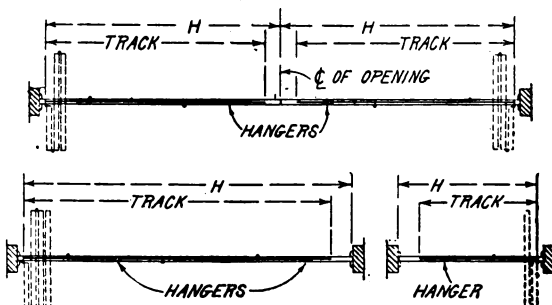


FIG. 10 — SHOWING HOW DOORS MAY BE DIVIDED AND FOLDED TO ONE SIDE

Flat surface hinges may be used if desired so long as the size door hanger listed for given thicknesses of doors is followed and the hinges are of such dimensions that the space between the doors when folded is not less than that given in the table, Fig. 11, for tight pin butts. The general run of surface hinges will meet this requirement. In using larger hangers than those listed for the different thickness doors, surface hinges are impractical unless they are offset. The dimension *B* for calculating the width of the door will then be one-half the thickness of the door plus half the space between the doors when folded with the particular style of hinge used.

Hanger Number	Thickness of Doors Inches	Size of Butts Inches	Distance from Center of Hinge Pin to Edge of Door "A"		Distance from Edge of Half Door to Center Line of Hanger Track "B"		Space Between Doors When Folded "C"		Distance from "E" — Distance from Top of Soffit to Bottom of Header, Inches	Distance from "G" — Distance from Top of Jamb to Bottom of Furring Strip, Inches
			Loose Pin Butts, Inches	Tight Pin Butts, Inches	Loose Pin Butts, Inches	Tight Pin Butts, Inches	Loose Pin Butts, Inches	Tight Pin Butts, Inches		
135-0	1 1/2	3 x 3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
135-01	1 1/2	3 1/2 x 3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
135-1	2	4 x 4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
135-1	2 1/2	4 x 4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
135-2	2 1/2	5 x 5	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	5 1/2	4 1/2
335-	1 1/2	3 x 3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
335-	1 1/2	3 1/2 x 3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
137-0	1 1/2	3 x 3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
137-1	1 1/2	3 1/2 x 3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
137-2	2	4 x 4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2
137-2	2 1/2	4 x 4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3 1/2	3 1/2

FIG. 11 — TABLE OF SIZES AND DISTANCES FOR PLACING TIGHT AND LOOSE PIN BUTTS WITH THICKNESS OF DOORS

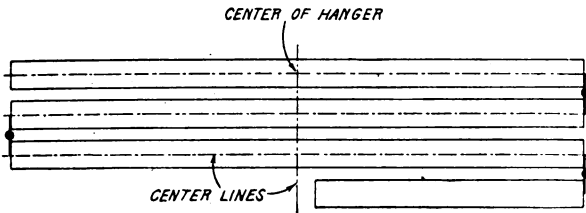


FIG. 12 — DIAGRAM FOR PROPERLY ATTACHING THE HANGERS

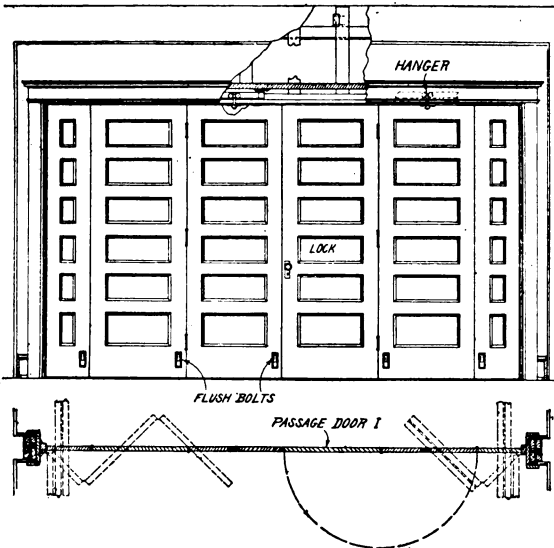


FIG. 13 — PLAN AND ELEVATION OF PARTITION HAVING FOUR FULL-SIZE DOORS AND TWO HALF DOORS

The hangers for accordion doors are of two general types, viz., two-wheel and four-wheel. The two-wheel hangers are designed for use on each full size door, but the four-wheel hangers are attached to each alternate door, beginning with the door farthest from the half door. Generally speaking, the four-wheel hangers are preferable. The plans in Fig. 10 show the correct number and location of four-wheel hangers for different numbers of doors. Half doors require

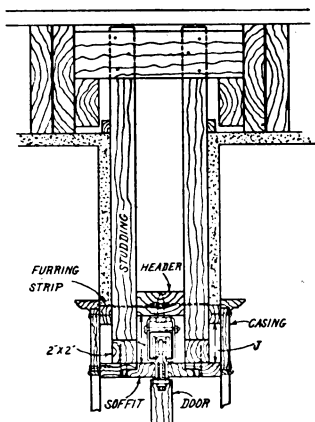


FIG. 15 — CROSS-SECTION SHOWING TYPICAL OVERHEAD CONSTRUCTION FOR SUPPORTING TRACK.

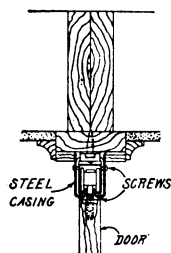


FIG. 16 — ANOTHER METHOD OF CONSTRUCTION SOMETIMES USED.

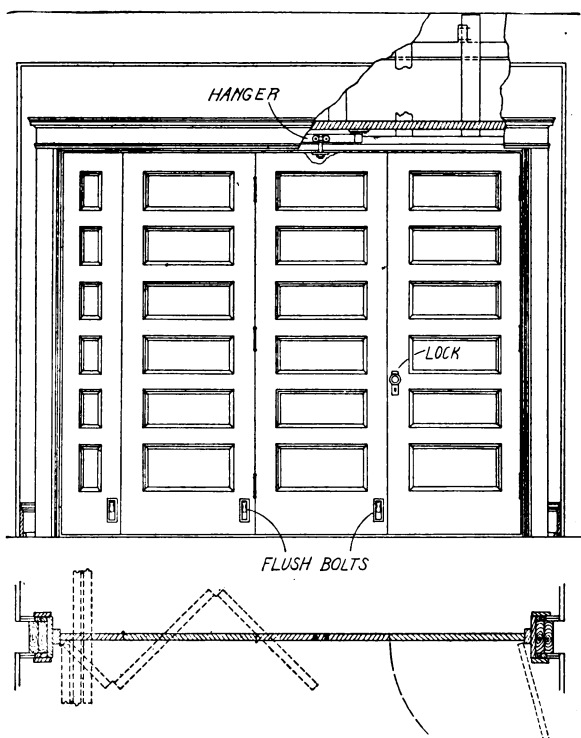
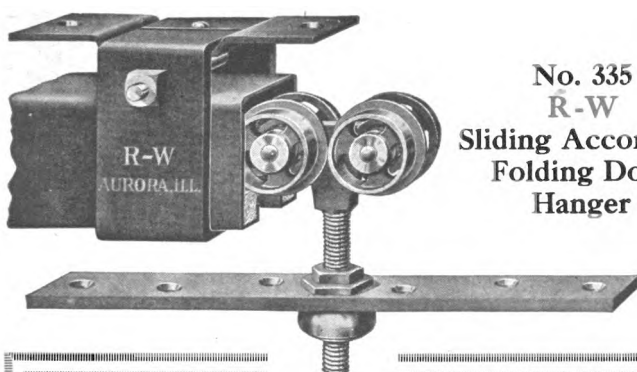


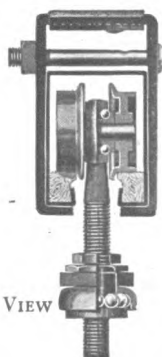
FIG. 14 — PLAN AND ELEVATION SHOWING TWO FULL-SIZE AND ONE HALF DOOR FOLDING TOWARD ONE SIDE AND A SEPARATE SWING DOOR HINGED TO OPPOSITE JAMB.

(Continued on page 9)

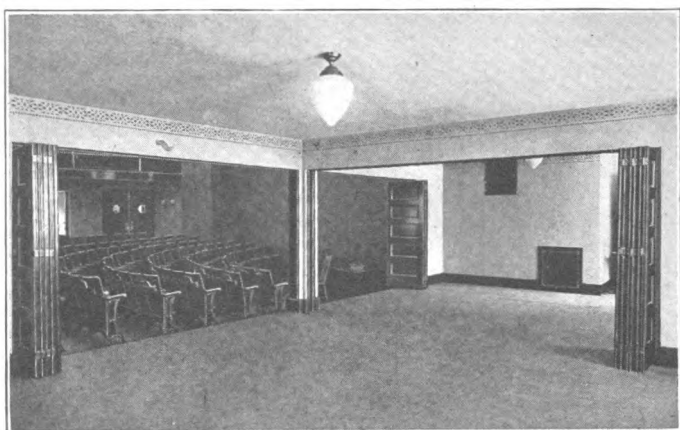


No. 335
R-W
Sliding Accordion
Folding Door
Hanger

Where the best door hanger for the purpose is wanted, a door hanger that operates in wood lined track, (see cut below), which is easy and noiseless in moving the doors, the No. 335 R-W Sliding Accordion Folding Door Hanger is strongly recommended.

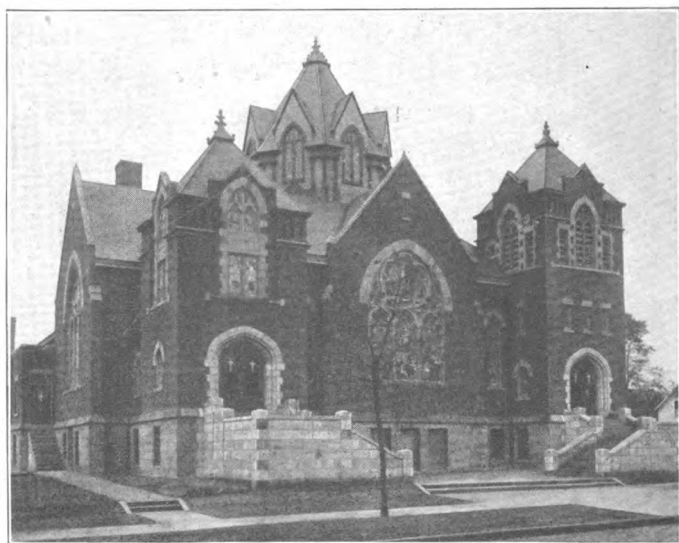


CROSS SECTION VIEW

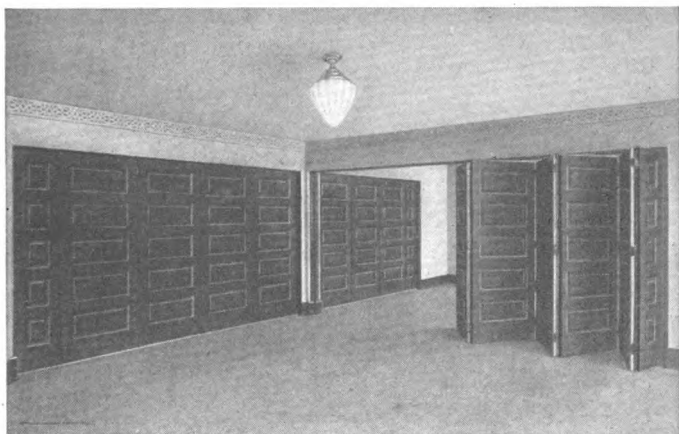


A SECTION SHOWING DOOR OPEN

The increase in church going among
the Sunday School end of church
methods of construction so as to make
every purpose. For Sunday School
great help; for social affairs those people
the reason for **R-W Sliding Acc**

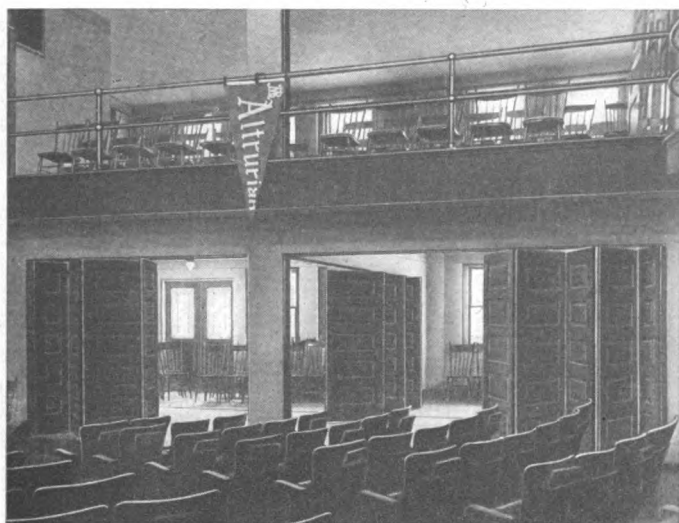


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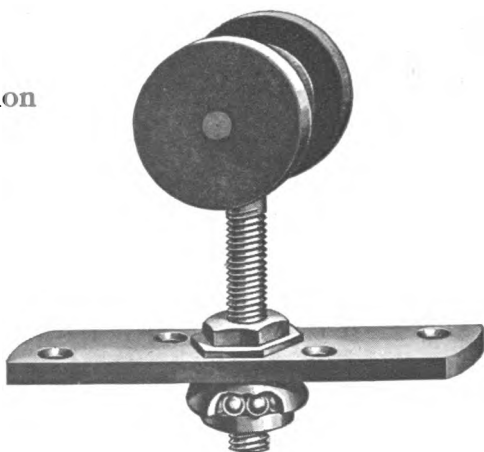
SHOWING DOORS CLOSED

ing young and old, particularly in
work, has brought in use various
ke possible the use of floor space for
ol work, separate class rooms are a
stitutions would be in the way. That is
rdion Folding Door Hangers.



SHOWING FIRST FLOOR AND BALCONY WITH SLIDING DOOR DIVISION

**No. 137
R-W
Sliding
Accordion
Folding
Door
Hanger**



Occasionally conditions warrant the use of a hanger on every full sized door in accordion folding door installations. In such cases the No. 137 R-W Sliding Accordion Folding Door Hanger is the one to use. Made in four sizes to suit varying thickness and weight of doors.

(Continued from page 4)

no hangers. To attach the hangers properly, the doors should first be hinged together, following the suggestions previously given, and then folded. Scribe a line across the center (considering width) of all the doors at the top, then draw center lines (considering thickness) on each door intersecting the first line, as in Fig. 12. To insure correct folding it is essential that the pendant bolt of all the hangers be located exactly in the center of the doors. Screw the hangers to the doors so the center of the pendant bolt will be located exactly over the point where the lines intersect.

It is sometimes desirable to have a passage or service door between the two rooms, and to accomplish this the two methods given in Figs. 13 and 14 are in use. Fig. 13 is a plan and elevation of a partition consisting of four full-size doors and two half doors. The left half of the partition is hung as described above. At the right side, instead of attaching the hanger to *I*, the door farthest from half door, it is attached to the next door. The door *I* is then free to be used as an ordinary swing door. This method is the more common and gives a reasonable degree of satisfaction on narrow doors, but for wider doors it is subject to difficulty from the door dragging on the floor. It is also necessary to use a little more care when folding the doors, especially if floor guides are not in use. The second method, Fig. 14, can sometimes be used to good advantage, and is perhaps the better of the two where conditions permit. This plan and elevation shows two full size and one half door folding toward one side and a separate swing door hinged to the opposite jamb. This swing door is used for service independent of the folding doors. When the partition is opened, the service door is swung back against the side wall. The passage door in both cases locks to the adjoining folding-door.

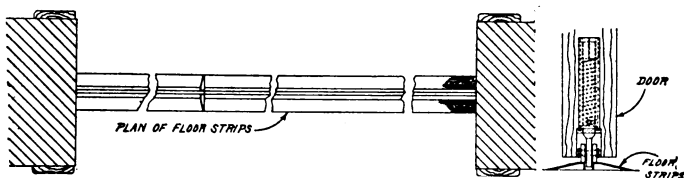


FIG. 17 — HORIZONTAL AND VERTICAL SECTIONS SHOWING TYPE OF FLOOR GUIDES OFTEN USED

When all doors fold to one side, a length of track equal to the width of the opening, less 8 in., is required. The track, of course, might be run the full width of the opening, but this 8-in. space is convenient for inserting or removing the hangers from the track. When doors fold toward both sides of the opening a 1-ft. space may be left at the center between the two runs of track. This is clearly indicated in Fig. 10. When applying the trim a removable section of soffit should be placed directly below the place where the track is omitted, to give access to the end of the track without disturbing other members of the trim.

The track brackets are of a type which will allow the removal of the track if necessary, and should be spaced from 24-in. to 30-in. centers excepting the first two or three brackets over the hall door. These should be spaced from 12-in. to 18-in. centers because of the additional load to be supported at this point when the doors are folded. Use the closer spacing of brackets for heavy doors.

A vertical cross-section, showing typical overhead construction for supporting track of a prominent make, is designated as Fig. 15. The conditions on each building, of course, determine to a large extent the particular structural arrangement. A header to which the track brackets are to be bolted is attached to the studding a suitable distance above the soffit. This dimension varies from 3 1/4 in. to 5 1/4 in., according to the size of track used. A 2 in. x 4 in., as shown, is suitable for all except the largest size of track, which requires a 2 in. x 6 in. head in the ends of the studs with a 2 in. x 2 in. and nail 7/8 in. x 1 1/2-in. furring strips to the side of the studs a sufficient distance above the top of soffits to permit a screwdriver to be inserted between it and the 2 in. x 2 in., for the purpose of engaging the bolts through the side of the track brackets. The distance *J* will vary from 3 1/4 in. to 4 3/4 in. The soffits and casings should be attached with screws, as shown in the illustration, so they may be removed without damage. This will be found convenient in case it should be necessary to remove the track. Head casing not less than 6 in. wide is required for the small sizes of track, but with the largest size the width of casing should not be less than 8 in. Allow 1/4-in. clearance between top of doors and bottom of soffits.

Fig. 16 illustrates another method of construction which is sometimes used. In this the track brackets are attached directly under the ceiling or beam. The track is then inclosed with a steel casing which is attached to the brackets with small machine screws, the brackets having been previously tapped to receive the trim. The casing may be grained to match the woodwork or otherwise finished. This method is particularly adaptable when the partitions are applied to old buildings, but is also advantageous in new buildings because of the easy accessibility to all the fixtures.

A flush door bolt should be used at the bottom of each door, as shown in the elevation, Figs. 13 and 14. This gives required rigidity to the partition.

Floor guides similar to Fig. 17 are sometimes used. These serve to steady the doors in operation, but are not essential to a satisfactory installation. One should be located in the bottom of each alternate door in a line exactly under the center of the hanger pendant. When using floor guides, a type of flush bolt, which will not interfere with the guide strips, should be selected.

(To be continued)

The Proof of the Pudding



O. L. PHILLIPS
HARDWARE
ROTAN, TEXAS

I have been selling your door hangers and track for some time and owe my success mostly to the information published in your house organ "Door-Ways" each month. L. R. ADAMS.

HASTINGS PUBLIC SCHOOLS
HASTINGS, MINNESOTA

About three years ago, we purchased fifteen manual training benches and thirty vises from you. We like your benches very much. They have had considerable usage and not once have the vises given trouble. They are mechanically perfect.

PAUL E. STOLLBERG.

F. D. MISENER
TULSA, OKLAHOMA

Referring to your house organ "Door-Ways" of July. Can you send me another copy? The article on "Ability to Sell" was splendid and we would like to send one of each to our seven yards. F. D. MISENER, by C. J. MEAD.

GEO. F. SCHRADER
ARCHITECT
SARANAC LAKE, N. Y.

I received a few days ago, the door hanger which you so kindly sent me through Geo. L. Starks & Co. I thank you for same and consider this the best parlor door hanger on the market. Have used quite a number of them and all give good satisfaction. GEO. F. SCHRADER.

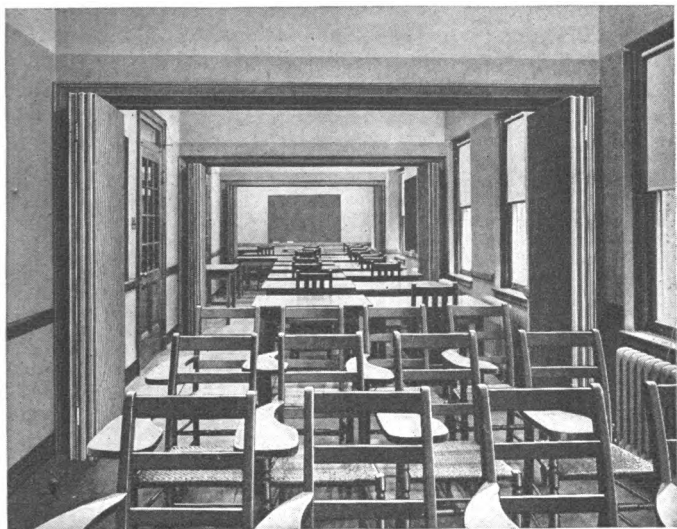
M. M. BUSH
HARDWARE
MARATHON, N. Y.

Mr. Bush bought some Nos. 410, 00, 300 R-W Grindstones. He sold all of them in a very short time and said they were the best he had ever had.

ARCHITECTURAL design of churches, schools, Y. M. C. A. buildings must keep pace with and be so planned to the work carried on in those institutions in the most satisfactory and economical way.

In Y. M. C. A. work the wide-spread and diversified activities, the earnest endeavor to include in the privileges some thing for everybody, night schools, social nights, Sunday afternoon meetings, camera clubs, industrial welfare work, has brought up the serious problem of how to get the most out of the floor space available.

The building must be centrally located and is for that reason generally in that section of town where land values are the highest. This makes the floor space problem of even greater importance.



The accompanying illustration shows how one Y. M. C. A. planned to get full use of their floor space. This is but one section of the building where sliding folding doors are used. As will be noted, when the doors are folded open one large room is available for general use, but when desired this large room can be divided in two or more separate rooms for smaller gatherings or different classes. In another section of the building, sliding folding doors are so installed that the large room can be divided into halves, quarters, eighths and even smaller rooms, or a group of rooms of different sizes, with passage doors through the sliding partitions.

In the R-W line of equipment for sliding partitions can be found some arrangement to suit any condition. Sliding accordion folding doors, flush doors or parallel partition doors can be used or the system can be made up of all three style arrangements should conditions so demand.

Free to the Trade

If you want to sell your business or partnership.

If you want to buy a business or partnership.

If you want an employee.

If you want a position.

A new classified ad, section in "Door-Ways," A twenty-five to fifty-word ad. may open to you just the opportunity you want.

Copy must be in our hands by the 15th of the month preceding the date of issue. Copy for February, 1917, issue we must have by December 15th, 1916.

In offering this service, free, to the trade, it is our desire to be the means of bringing together those of our readers who wish to make a change.

Copy can give the name and address of the advertiser, so he will receive the reply direct, or be keyed so the reply comes direct to us, for prompt mailing to the advertiser.

Following are samples of ads. which are sure to bring results:

POSITION WANTED—As Superintendent of Construction. Can estimate and take a board as draughtsman. Twenty years' experience. Can give A-1 references. Now Superintendent for contracting firm. Address, "S. B.," care of "Door-Ways," Aurora, Illinois.

WANTED—Young man with architectural and sheet metal drafting ability, or a young man that has had previous experience as a metal window, fire door and sheet metal salesman and who can work from architect's plans. We would prefer to secure the services of one that can handle both propositions. In your answer state your age, previous experience, salary you believe you can command and give references. Do not apply unless you are determined to stick and progress with a growing concern. Address, Willis Mfg. Co., Galesburg, Ill.

WANTED—Architect, ten years' independent practice in New York City, desires to enter selling end of any manufactured product entering into construction of building. Would consider purchase in partnership or good position that needs a trained, young and active man. Address, "D. I. R.," care of Door-Ways," Aurora, Ill.

WANTED—By young married man, 36 years of age, with fourteen years' railroad experience, position as Chief Clerk. Am college graduate in Civil Engineering. Three years' experience as Supervisor of Track and Buildings, and eleven years' experience as Chief Clerk to Chief Engineer. Can give A-1 testimonials. Address, E. L. C., care of "Door-Ways," Aurora, Ill.

WANT POSITION—An architectural draftsman, 23 years of age, desires position with a progressive firm. Five years' experience in designing and erecting reinforced concrete, steel and New England Mill Construction buildings of all kinds. Address, J. W. I., care of "Door-Ways," Aurora, Ill.

WANTED POSITION—By married man with 18 years' architectural practice and supervision of all kinds and classes of buildings. Several years' experience designing, estimating and making sash, doors, interior mill work, etc. Desire connection with contracting, manufacturing or building materials company. References if required. Address, "W. J. R.," care of "Door-Ways," Aurora, Ill.

WANTED—POSITION—As architectural draftsman by a young man of 22. Technical training. Three years' experience in architect's office. Neat tracer and good letterer. Can give best references from New York architects. Open for immediate engagement. Address, "J. J. O.," care of "Door-Ways," Aurora, Illinois.

Remember, this is free to the trade and is limited to wants as stated above.

Send in your copy.

Why the Architect and Contractor Should Advertise

ADVERTISING is selling by means of publicity. If it were possible and economical for you to see all of your prospective clients in person and show your ideas or tell about how you can help them, there would be no need for printed advertisements. But the architect and contractor cannot expect all prospective clients to come to his office voluntarily, nor can he expect all too see samples of his work. The recommendation of satisfied clients is good advertising but it is not ordinarily sufficient in itself to build up a large business quickly. The distributing of samples is excellent advertising but hardly practical in your case. Besides, you may want to sell your experience and your services in other towns and cities than your home location. Therefore, newspapers, street car cards, mailing cards or folders, personal letters or some similar form of advertising should be used. Instead of reaching one or two persons at a time with the spoken personal solicitation, your advertisement, with its printed sales talk and if possible, pictures of finished work, testimonial letters, reaches hundreds of readers.

The object of your advertisement is not always to complete a sale. It may do so and require only your personal closing of the deal, but your main object is to attract the reader's attention to you and your work and draw him to you when he is in the market for your services.

You can readily see the advantage of having hundreds of home buyers, business men, auto owners, farmers, etc., thinking of you and your work, rather than the few with whom you could otherwise come into personal touch.

Flush Door Hangers

FOR

Separating Rooms
in School Houses,
Churches, Auditor-
iums and Public
Libraries.

R-W Flush Door Hangers

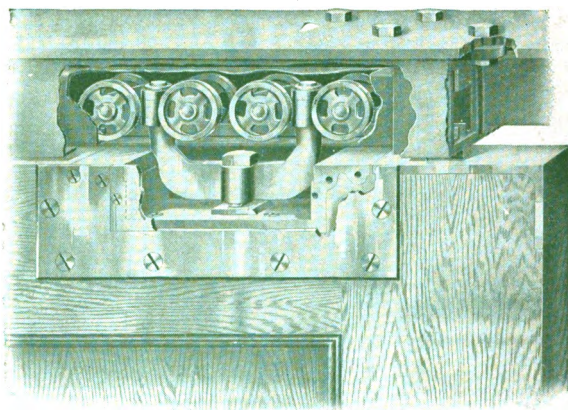
solve the Flush Door Problem
— operate smoothly, silently
and never fail.

We have blue prints giving
complete details of this equip-
ment. Shall we send you a set?

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.
INCORPORATED - 1880-1903-1910



No. 444 — R-W FLUSH DOOR HANGER

MADE IN TWO SIZES: No. 1 FOR No. 75 TRACK, No. 2 FOR No. 164 TRACK
APPROVED BY BOARDS OF EDUCATION IN ALL LEADING CITIES



February

1917



Value In Goods Is Like Security In Bonds—

VALUE is the same to goods as *protection* or *security* is in bonds or mortgages. If you lend money on a mortgage, you *protect* yourself by examining the title, determining on the merit of the property, getting the insurance assigned to you, recording the loan, etc. Why should you be *less* careful in making a purchase?

If the interest on the bond is not paid, it is possible to *protect* yourself by *foreclosing* the mortgage. You have *prior lien* against the property.

But if inferior goods do not do what you *thought* or *hoped* they would do, you *cannot* foreclose; you simply have to *admit* you were wrong, and *buy better* goods next time.

Value in goods includes the quality of the raw material and the *way* the goods are *made*. It is just as important as the best materials, sanitation, ventilation and fire protection are to a building.

Value in goods *safeguards* you against loss. Merit in what you buy is just as important as *honesty* in a bank. It is not the *first appearance* of the bank that protects you—but the *way* the funds are handled.

Goods that *lack* value, may *look like* goods that *possess* merit. The highest-grade bond may be *imitated* by the most unsafe "get-rich-quick" stock. You wouldn't buy the bond simply because it was printed on good paper and *looked* all right. You would demand to know *what was back of it*.

Value in goods means that those have *quality back of them*—and quality is *genuine security*.

The ex-convict may *seem to be* just as trustworthy as the man with a good record—and cheap goods may *look like* a "good bargain" *before* they are put to the test of *use*.

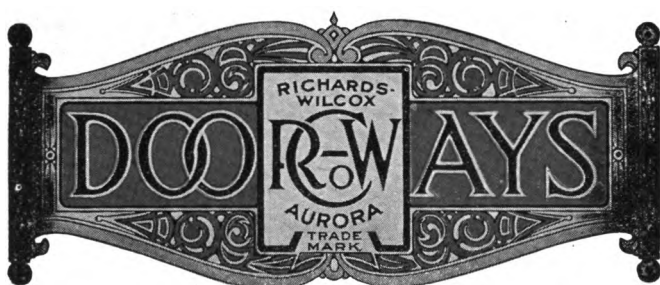
Merit is the same in what you buy as *standing* or *good will* is in a business house—or as *developed* talent is in a musician or an artist.

Value gives you *your money's worth*, and nothing *less* than value can ever satisfy you.

Goods that have merit are *always dependable*, just as the promissory note of a responsible person is always negotiable.

Dependability applies to goods as much as it does to security. In the United States, there is property of one kind and another worth *many times* as much as all the money in the country.

The *usefulness* of property and goods is the *end*—money is the *means*. The more *quality* there is in what you buy, the *more* your money has purchased. The greater the *security*, the *more certain* the *returns*.



FOR FEBRUARY, 1917

Full of Good Sense, Good Humor, with a Hunch for R-W Products
Published Once a Month by

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

Officers

W. H. Fitch Pres. & Gen'l Mgr.
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Milton D. Jones Sec'y & Treas.
P. L. Hoffman Superintendent

Branches

85 Walker Street New York City
15 East Lake Street Chicago
507 Arch Street Philadelphia
132 Pearl Street Boston
1735 Boatmans Bank Building St. Louis
321 Plymouth Building Minneapolis

The Richards-Wilcox Canadian Company, Ltd. London, Ontario

Volume 5

D. M. KAGAY, Editor

No. 2

R-W Trolley Overhead Carrying Equipment

Used in Manufacture of

Automobile Cushion Springs

THE methods of manufacturing the springs used in upholstering the cushions of an automobile are rapidly being revolutionized. As none of the automobile companies have thought it advisable to manufacture their own cushion springs, owing to the fact that this business has been specialized by wire spring makers, the result has been that those making coil springs have increased their plants and enlarged their business to such an extent that special and automatic machines, as well as other labor-saving equipment, are now being sought to lower the cost of production.

The Jackson Cushion Spring Co., Jackson, Mich., decided to make some radical changes in its methods a few months ago, and to this end called upon the writer to study its manufacturing methods, gather data and make suggestions as to what might be done to lower the cost of production. The equipment illustrated and described in this article is the direct result of the suggestion made. After the equipment had been in operation four weeks, it proved so successful that the company ordered some five hundred feet of track added to the trolley system and a second japan dip tank installed with its hoisting apparatus. Since this time other additions have been made to the trolley track and spring carriers.

DESCRIPTION OF EQUIPMENT

The complete equipment consists of 1,800 feet of trolley tracking; a japan dip tank 10 feet long, 2½ feet wide and 6 feet deep; an electric hoisting apparatus over the dip tank; a drain board 25 feet long; a three-compartment japan baking oven 50 feet long; and a fuel oil plant to furnish heat to the oven. Fig. 1 shows a section of the trolley system from the middle of the shop looking north. Along the right side of this picture the springs may be seen hanging from the spring carriers and trolleys that are located on numerous tracks. A somewhat better idea

2 *R-W Trolley Overhead Carrying Equipment*

of the general arrangement of these may be obtained by an inspection of the plan view, Fig. 6, in which the sidings are shown at *A*. The letter *A* also denotes the same part in Figs. 1 and 2.

CONSTRUCTION OF SPRING CARRIERS

At this point the work is started by hanging the springs on spring carriers, several of which may be noted empty and hanging from different parts of the track. The details of construction are more clearly shown in Fig. 7. The body of the carrier is formed of a 2-inch gas pipe which has caps screwed on each end, the entire length being 8 feet, 4 inches. Six of these carriers just fill an oven compartment which is 50 feet, 2 inches long on the inside. The hooks on which the springs are hung are made by bending $\frac{3}{8}$ -inch strong steel rods to the desired shape and stringing them along the gas pipe. It will be seen that they can be easily adjusted along the pipes by sliding, to allow for springs that differ in thickness. The bolts *H*, Fig. 3, pass through the gas pipe and into four-wheel roller-bearing trolleys that roll inside the tracks.

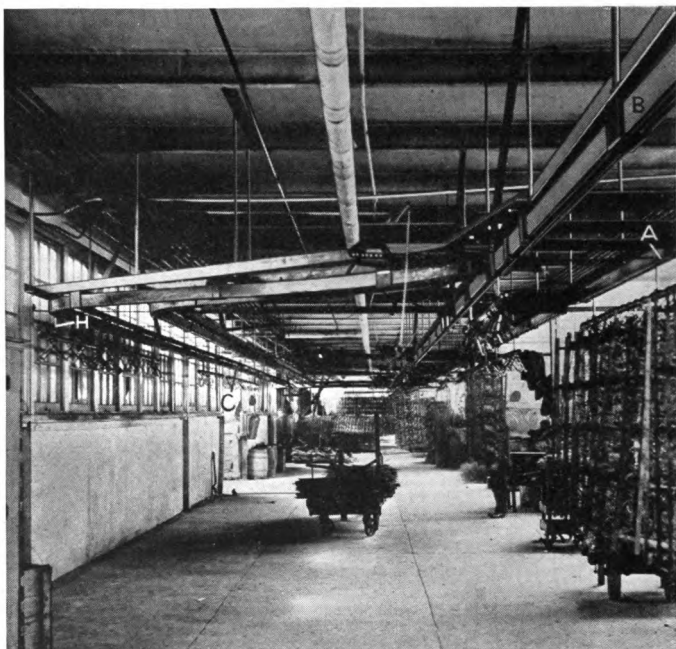


FIG. 1 — TROLLEY SYSTEM, LOOKING NORTH FROM CENTER

These $\frac{3}{8}$ -inch bolts support the gas pipe carrier with its load of springs in such a way that it can be readily pushed to any part of the trolley system. It will be seen that the carriers are very simple and cheap in their construction. As soon as a carrier has been completely loaded, it is switched onto the main line track *B*, Fig. 1, from which it is rolled into the japanning room. At the left may be seen two side tracks *C*, where springs can be switched and stored while waiting their turn to be dipped in the japan tank. Fig. 2 shows this trolley system looking south from the far end of Fig. 1. The curves and track that carry the work from both ends of the shop and switch it into the japanning room are shown at *D*. At *E* may be seen one of the spring assembly or inspector's benches where the springs are loaded on the carriers. The work is switched from bench sidings to the main line on one of the curves shown at *F*.

Referring once more to Fig. 6, the ten sidings at which the springs are loaded on the carriers by the inspectors can be seen at *A*; the curve *F* and the switches that turn the work into the main track are a part of

these sidings. The plan view which shows the track in outline also gives a good idea of the layout of tracks leading into the japanning room; the japan dip tanks; the drain boards; the three-compartment japan baking oven; the room where the springs are crated; the doors through which these are loaded into the freight cars and the door through which the empty spring carriers are returned to the siding *A* to be reloaded. Four lines of track lead to the japan dip tank and three of these tracks converge at the tank, while the fourth comes from the opposite side of the shop and is switched to one of these three in the other room. After running over the dip tank and drain board, the trolley system again branches out into three tracks, one of which goes to the center of each of the three compartments in the japan baking oven. Once more the three tracks converge into one where the empty spring carriers go through the door to return to the inspector's benches for reloading.

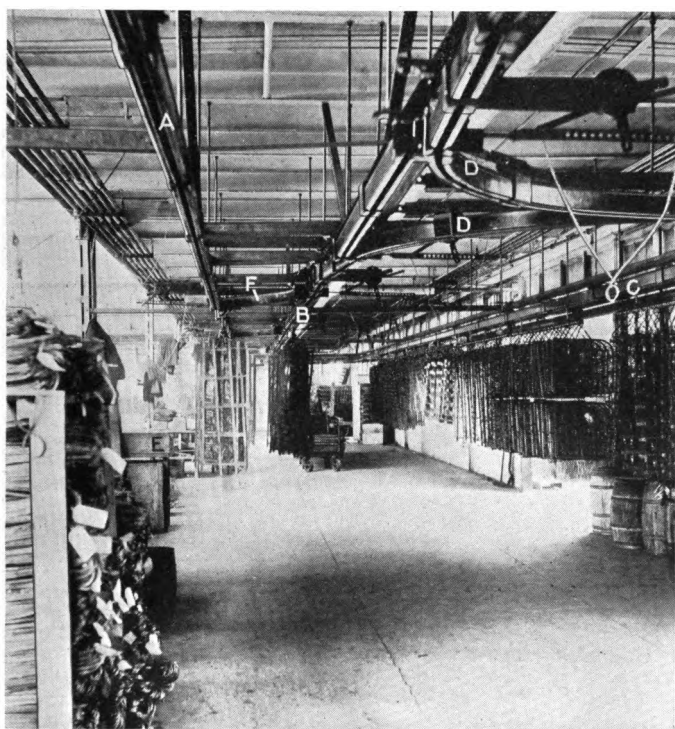


FIG. 2 — TROLLEY SYSTEM, LOOKING SOUTH FROM NORTH END

Prior to the installation of this trolley system, the work was loaded on floor trucks similar to those shown in Figs. 1 and 2. This method of handling caused considerable trouble, as the trucks would accumulate along the wall and it was a daily occurrence for this gangway to be so full of trucks that another one could not be pushed through without moving some of those already there. Assembled springs were frequently thrown to the floor while waiting for trucks to be extricated from the jam and emptied, all of which necessitated extra work in handling the springs and interrupted the steady movement of the work in one direction. It can easily be seen that a trolley system of this kind is a great labor saver by keeping the work moving in one direction in a continuous procession, the empty carriers coming back around the other end of the loop. The arrangement of the track is such that it would be impossible for the work to travel backward, as it would be blocked by the work that was coming forward. The illustrations, Figs.

1 and 2 were taken at a time when the production of springs was at its height, and they plainly show how little chance there is for congestion. During January, when the old method of handling was in use, it was difficult to walk through this gangway on account of the number of floor trucks that were in the way. At the time when these photographs were taken, there were from 10 to 15 per cent more springs turned out than in January.

ARRANGEMENT FOR JAPAN DIP

Referring to Fig. 3, it will be seen that the four tracks come together to pass through the door into the japanning room and unite at the dipping tank. In the foreground at the upper part of the illustration can be plainly seen the carrier hooks on which the springs are hung. The load of springs *I* is just entering the loose piece of track over the dip tank to be lowered into the japan tank. It may be noted here that the trolley track, with its switches, curves, hangers, etc., is the product of the Richards-Wilcox Mfg. Co., Aurora, Ill. A very good view of the hoisting apparatus is shown in Fig. 7. The electric hoist itself is located in the doghouse overhead, and is therefore not apparent in the illustration. It is, however, a standard type of electric hoist made by the Detroit Hoist & Machine Co., which is geared to lower the cable at the rate of 50 feet per minute, at which speed it has a capacity of 1,000 pounds, which is ample, as a load of springs never weighs more than 300 pounds. The two cables *K* are lowered simultaneously from the drum of the hoist, traveling over the sheave wheels *L*, and are leaded into the blocks *M*, which are bolted to the loose track *J*. When the track is lowered, the spring bars *N* push the blocks up into the track to prevent the wheels from rolling out and permitting the load to fall. As the load is raised to its position, the tapered ends of blocks *M* enter holes in the blocks *O* and guide the apparatus back to its correct position. The sheet metal forms *P* at each end of the gap, serve to guide the loose track *J* into correct alignment with the track at both ends.

The electric hoist is started by means of a switch when the spring load is ready to be lowered into the japan, and when the springs are within six inches of the bottom of the japan tank, the hoist automatically reverses and raises the load again to the track. When it reaches the top, another trip automatically stops the hoist when track *J* has reached its proper position and is in alignment with the track at both ends. The trip blocks are movable so that the upper and lower limits of the hoist travel can be set at any point desired. In connection with this japanning operation, a rather unusual procedure was introduced by putting sufficient water in the japan tank to reach within twenty-four inches of the top. Enough japan was then put in the tank to bring the level to within six inches of the top, and as the japan is lighter than water, it always remains on top. Therefore, when the springs are lowered into the bath, they are coated with japan before they reach the water, and as the water cannot wash the japan off, it cannot attack the steel to form rust. The amount of saving will be evident from the statement that approximately fifteen barrels of water and five barrels of japan are necessary to fill the tank to the desired level, so that it is evident that about fifteen barrels of japan are saved.

After the dipping operation has taken place, the casting *R* must be moved out of the way before the spring load can travel forward once more. This casting acts as a buffer block against which the end of the gas pipe strikes when the springs are rolled onto track *J*, thus stopping the load in the right position to be lowered. This buffer projects from a sleeve which revolves on a casting fastened to the track. After the loose piece of track is raised into position, the slot *T* must be brought opposite the opening in the bottom of the track. The bolts *H* which support the carriers on the trolleys can then pass through and the work travels forward. The buffer is controlled by pulling the handle *S*, to which is attached a wire rope passing over the pulleys shown, the other end of which is fastened to the buffer projection *R*, swinging it back toward the brick wall. This hoisting apparatus is very simple and works much easier than the description might indicate. The springs are lowered into the japan and then hoisted back, carried over the drain board and then to the three compartments of the oven much

(Continued on page 9)

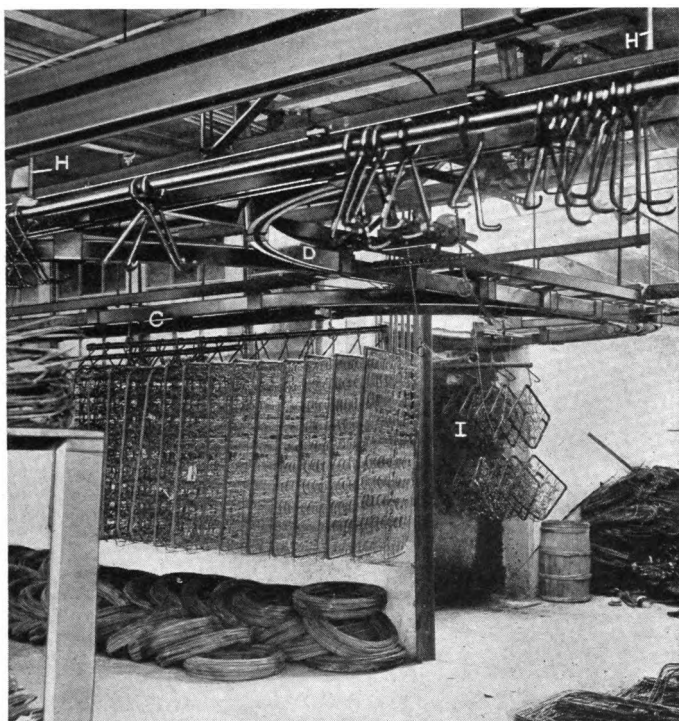


FIG. 3 — FOUR TROLLEY TRACKS PASSING THROUGH DOOR
TO UNITE AT JAPAN DIP TANK

IN EVERY factory, foundry, warehouse, machine shop the handling of material in the process of manufacture, raw material and the finished product is an item of considerable expense. Trucking and industrial railways are some of the means of transportation employed, but the floor space needed, the wear and tear on the floor, the waste motion and lack of efficiency and the manual labor required in their operation are cost-producing items which many an employer would like to avoid.

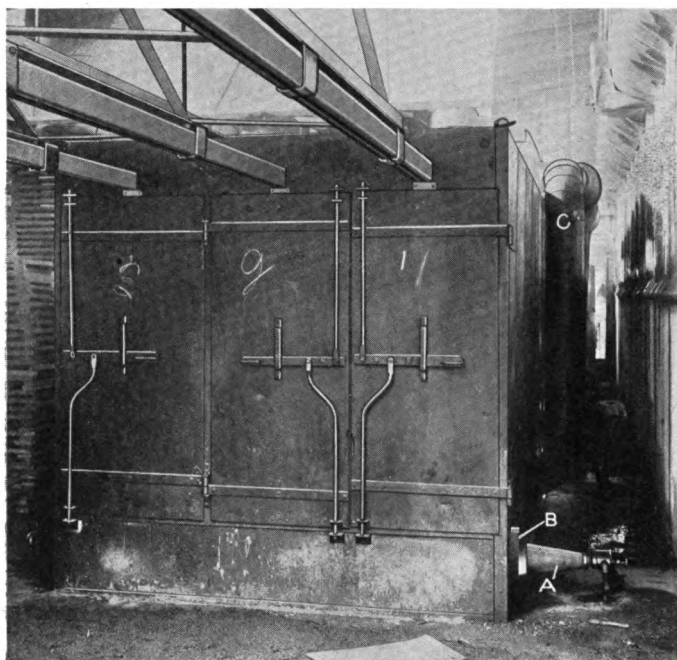


FIG. 4 — BACK OF OVEN WHERE SPRINGS ARE PULLED OUT TO BE CRATED

OVERHEAD systems have proven just the proper seat-spring factories, in the dipping and drying the material to be handled is of an inconvenient size where the material is of a nature easily spoiled or Overhead carrying systems will reduce the cost

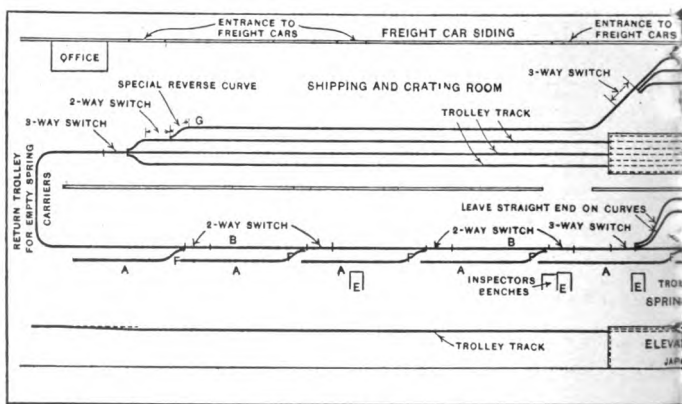


FIG. 6 — PLAN AND ELEVATION OF TROLLEY

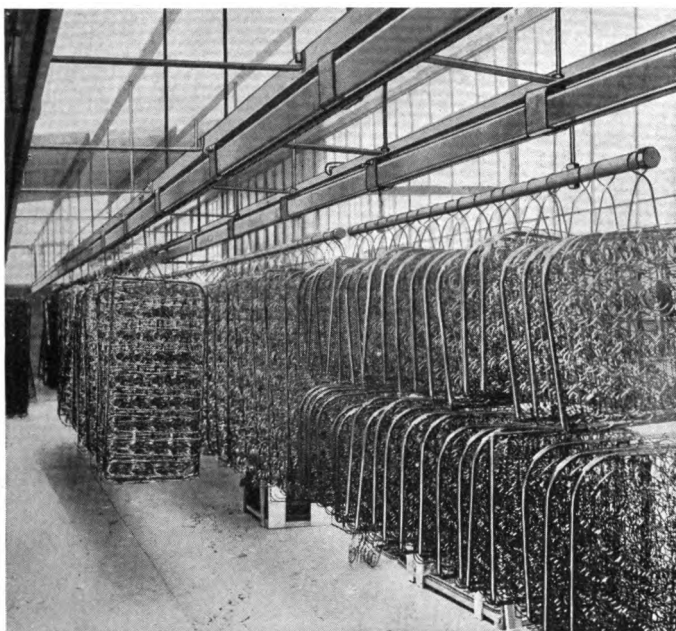
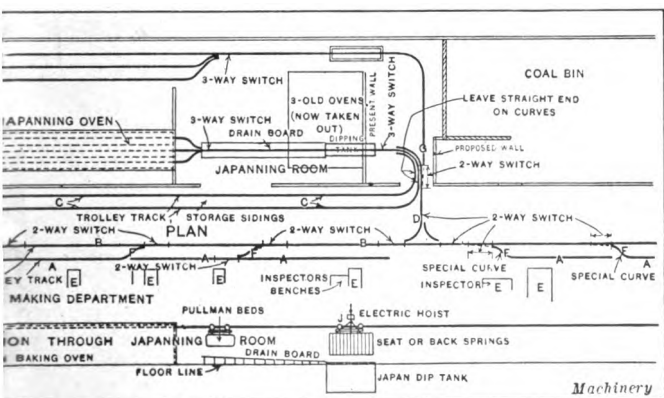


FIG. 5 — SPRINGS REMOVED FROM OVEN WAITING TO BE CRATED AND SHIPPED

ber arrangement in bed-stead and bed-spring and
ng departments of manufacturing plants, where
se or shape for trucking, in foundries and shops,
wasted by overflowing when roughly handled.
of manufacture and increase the profits.



SYSTEM FOR HANDLING CUSHION SPRINGS

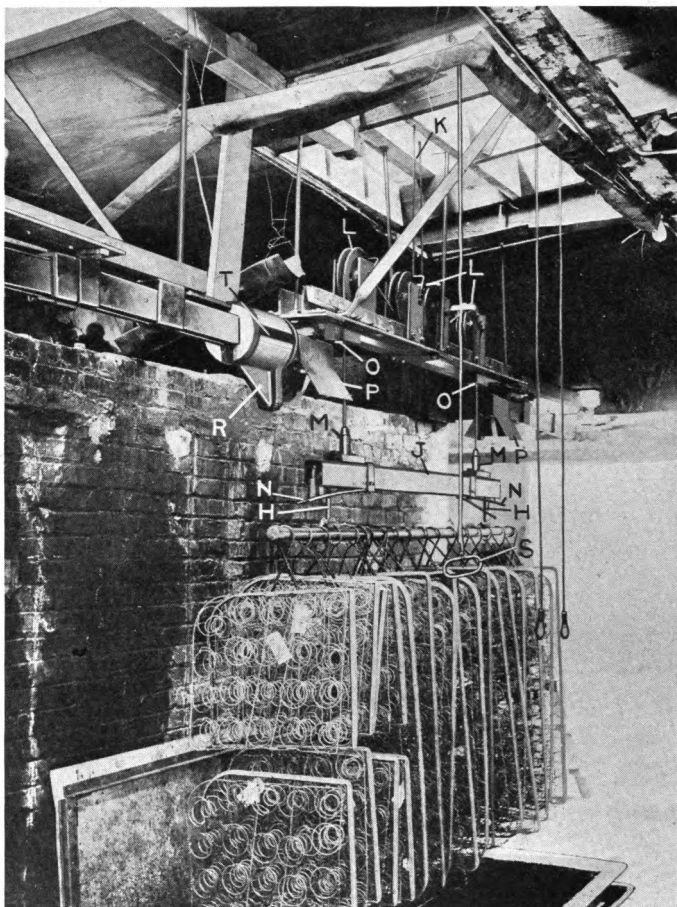


FIG. 7 — DIPPING SPRINGS INTO JAPAN WITH ELECTRIC
HOISTING APPARATUS

OVERHEAD carrying systems, where conditions, construction and plan of handling products allow, are the most satisfactory and economical transportation methods. It takes all this space-using work off the floor, where space is at a premium, and suspends it from the ceiling where there is plenty of space, no floors to wear, the load can go but one way as laid down by the factory superintendent and not being left to the will and pleasure of the truckmen to cart all around the plant on a time-consuming cruise before reaching destination.

(Continued from page 4)

faster than they can be baked. As each oven compartment is designed to hold six loads and does the baking in twenty minutes, it will be seen that the hoisting apparatus handles eighteen loads every twenty minutes, or fifty-four loads per hour. The capacity of the hoist is ample for the work, and arrangements have been made for a fourth oven compartment which can easily be taken care of by the hoist in case it should be required.

ARRANGEMENT OF JAPANNING OVENS

Fig. 8 shows the springs just after they have been dipped, as they are passing over the drain board and into the oven. It will be noticed

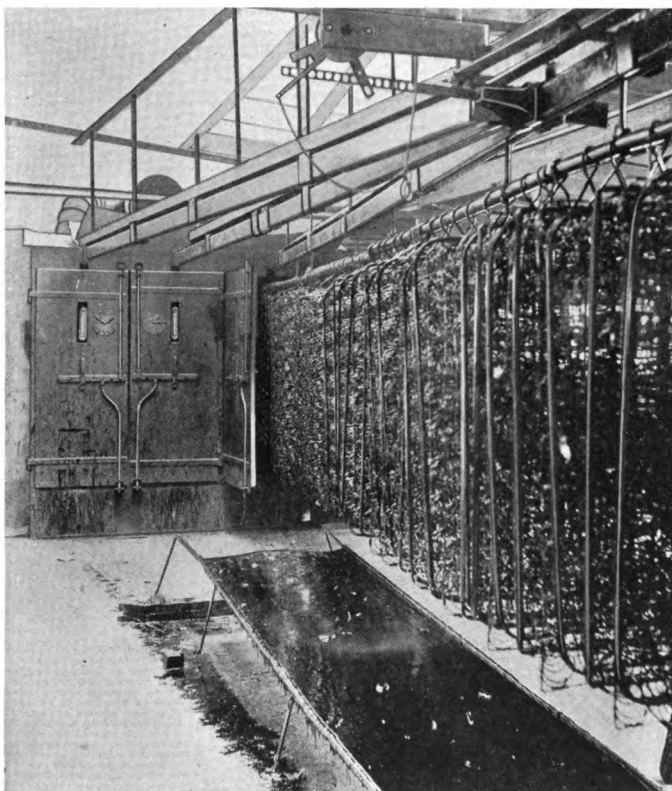


FIG. 8 — SPRINGS PASSING OVER DRAIN BOARD TO FILL ONE COMPARTMENT OF JAPAN BAKING OVEN

that each oven door is furnished with a clock dial, and when the door is closed the hands of the dial are set at the time when the compartment was filled with springs. After twenty minutes has elapsed, during which time the japan is baked hard and dry, the operator pulls a wire that rings a bell located at the other end of the oven. This notifies the operator at the other end that one of the compartments has completed its bake, and by ringing the bell one, two or three times, he is advised which oven is ready for discharge. The operator then pulls the springs out of this compartment and leaves it ready to be recharged. The thermometer shown on each door indicates the temperature in each compartment, and the oil burners can be regulated so that the temperature will be kept uniform at the desired degree.

Owing to the construction of the trolley system, the spring carriers can be easily moved. In fact, one man pulls the entire charge out of each compartment at one time, and as this consists of fifty feet of

springs, or six carrier loads, it is evident that the work cannot be difficult since one man does it all day long. The same man also moves the springs to the part of the trolley system where the crating is done before shipping, at any desired point in the 100-foot length of the shipping room that the three tracks pass through.

OLD METHOD OF HANDLING

The old method of handling this work prior to the installation of the equipment mentioned consisted in the use of floor trucks, on which the springs were brought to the japan dip tank. They were then removed from the trucks one at a time and dipped in the japan, after which they were hung on a chain and moved over the drain board by turning a sprocket wheel with a crank. After this, they were removed from the chain and placed on iron trucks which were wheeled into the gas-fired japanning oven and baked. The baking frequently consumed an hour's time, and never less than forty minutes, to get the springs dry and hard enough to ship. After that, the trucks were trundled from the ovens to the shipping room, which usually required moving a number of other trucks (that had accumulated in the passageways) out of the way.

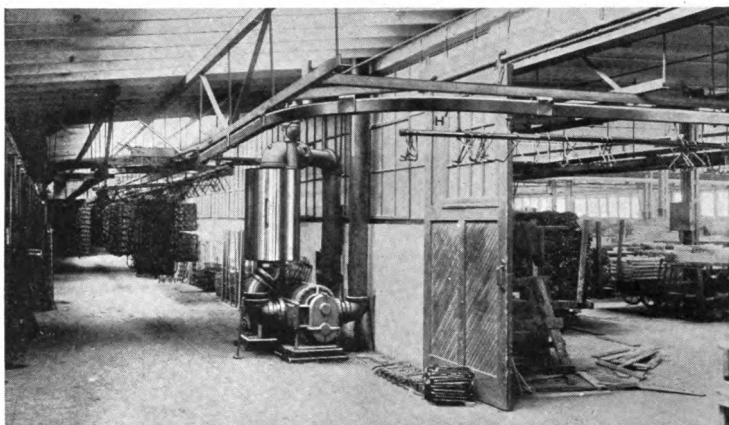


FIG. 9 — VIEW OF SHIPPING ROOM, SHOWING POINT AT WHICH EMPTY CARRIERS RETURN TO BE RELOADED

Four men were required on the day shift and four on the night shift to do this work, or a total of eight men for each working day. With the new equipment, one man keeps the springs moving to the electric hoist, another operates the hoist and fills the oven, and the third man pulls the springs out of the oven and delivers them to the shipping department to be crated. It is evident from this that the labor of five men was saved on this part of the work, and allowing for 300 working days per year, the amount saved in wages alone would be \$3,150. This saving would be increased considerably if the labor costs at the loading and crating end of the trolley system were also included.

The back end of the oven is shown in Fig. 4, this being the point where the springs are pulled out and sent into the crating and shipping rooms. Fig. 5 shows the spring loads which have just come from the oven and are waiting to be removed by the men who do the crating.

POWER PLANT AND SHIPPING ROOM

One side of the shipping room is shown in Fig. 9, the japanning outfit being in evidence at the far end and the springs hanging from the trolley waiting for the craters. The method of hanging the track from angle irons can be clearly seen at the point where the three oven tracks merge into one, and empty spring carriers can be seen coming through the curve and switches at this point, while another one is moving through the doorway on its return to the inspector's benches to be reloaded.

Daily Doings of Punk



Free to the Trade

If you want to sell your business or partnership.

If you want to buy a business or partnership.

If you want an employee.

If you want a position.

A new classified ad. section in "Door-Ways." A twenty-five to fifty-word ad. may open to you just the opportunity you want.

Copy must be in our hands by the 15th of the month preceding the date of issue. Copy for April, 1917, issue we must have by February 15th, 1917.

In offering this service, free, to the trade, it is our desire to be the means of bringing together those of our readers who wish to make a change.

Copy can give the name and address of the advertiser, so he will receive the reply direct, or be keyed so the reply comes direct to us, for prompt mailing to the advertiser.

Following are samples of ads. which are sure to bring results:

POSITION WANTED — As Superintendent of Construction. Can estimate and take a board as draughtsman. Twenty years' experience. Can give A-1 references. Now Superintendent for contracting firm. Address, "S. B.," care of "Door-Ways," Aurora, Ill.

WANTED — Young man with architectural and sheet metal drafting ability, or a young man that has had previous experience as a metal window, fire door and sheet metal salesman and who can work from architect's plans. We would prefer to secure the services of one that can handle both propositions. In your answer state your age, previous experience, salary you believe you can command and give references. Do not apply unless you are determined to stick and progress with a growing concern. Address, Willis Mfg. Co., Galesburg, Ill.

WANTED — Architect, ten years' independent practice in New York City, desires to enter selling end of any manufactured product entering into construction of building. Would consider purchase in partnership or good position that needs a trained, young and active man. Address, "D. I. R.," care of Door-Ways," Aurora, Ill.

WANTED — By young married man, 36 years of age, with fourteen years' railroad experience, position as Chief Clerk. Am college graduate in Civil Engineering. Three years' experience as Supervisor of Track and Buildings, and eleven years' experience as Chief Clerk to Chief Engineer. Can give A-1 testimonials. Address, E. L. C., care of "Door-Ways," Aurora, Ill.

WANT POSITION — An architectural draftsman, 23 years of age, desires position with a progressive firm. Five years' experience in designing and erecting reinforced concrete, steel and New England Mill Construction buildings of all kinds. Address, J. W. I., care of "Door-Ways," Aurora, Ill.

WANTED POSITION — By married man with 18 years' architectural practice and supervision of all kinds and classes of buildings. Several years' experience designing, estimating and making sash, doors, interior mill work, etc. Desire connection with contracting, manufacturing or building materials company. References if required. Address, "W. J. R.," care of "Door-Ways," Aurora, Ill.

WANTED — POSITION — As architectural draftsman by a young man of 22. Technical training. Three years' experience in architect's office. Neat tracer and good letterer. Can give best references from New York architects. Open for immediate engagement. Address, "J. J. O.," care of "Door-Ways," Aurora, Illinois.

Remember, this is free to the trade and is limited to wants as stated above.

Send in your copy.

RAILROADS — The gross earnings of the steam railroads of the United States in ten months of 1916 increased \$515,042,186 over a like period for the year previous.

* * *

SHIPPING — For the first time in history the shipbuilding industry of the United States in 1916 virtually equaled that of England. On October 1st, steel vessels with a total of 1,454,270 tonnage were built or being constructed here, compared to 1,540,118 tonnage in England.

* * *

AUTOMOBILES — Exports of automobiles leaped from \$33,000,000 in the year ending June 30, 1914, to \$120,000,000 in the year ending June 30, 1916.

* * *

STEEL — The value of the total exports of iron and steel and manufacturers in 1914 was \$251,480,677; in 1916 it was \$621,209,453. Exports of railway cars rose from \$3,000,000 in 1915 to \$26,000,000 in 1916. (Export figures are for fiscal years ending June 30th.)

* * *

STEEL — The United States Steel Corporation has been shipping its produce at the rate of 50,000 tons a day, and yet the unfilled orders at the end of September were about 80 per cent greater than in 1915.

* * *

COPPER — The dividend in copper for nine months of 1916 almost doubled that of any other full year previous. The exports of copper increased more than \$74,000,000 in the twelve months ending June 30th last.

* * *

CHEMICALS AND EXPLOSIVES — The export of chemicals from the United States, owing to the cutting off of the German supply, increased \$97,000,000 in two years, while the figures of explosives exported an enormous increase of \$460,000,000 for the same period.

* * *

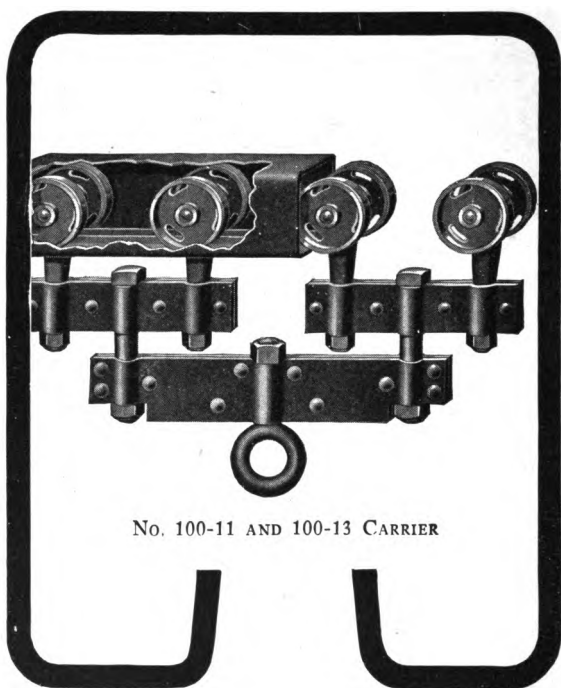
OIL — Exports of oil from the United States increased \$33,000,000 in one year. Mr. John Rockefeller's holdings in the Standard Oil Company, it is estimated, have increased his fortune by approximately \$300,000,000 in the last five years.

* * *

STOCKS AND BONDS — Recently the New York Stock Exchange reflected the country's warborn prosperity by having twenty-seven consecutive million-share days. In one year the value of American railroad securities held abroad was reduced from \$2,223,510,229 to \$1,415,628,563.

* * *

COTTON — Prices for cotton in October reached the highest level since the Civil War. Exports of cotton manufacturers have increased \$61,000,000 in two years, though the exports of raw cotton fell from \$610,500,000 in 1914 to \$374,000,000 in 1916.



No. 100-11 AND 100-13 CARRIER

FULL SIZE CROSS-SECTION OF No. 175 R-W TROLLEY TRACK

FOR loads up to 3,000 pounds the trolley system answers the need, but for heavier loads or where conditions are such that the supports must be a considerable distance apart, the I-beam system is preferable.

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.





MARCH-1917

Quality Needs No Search-Warrant —

WHENEVER Merit is present, it *proves itself*. No amount of *hoping* is going to put *quality* into what *lacks* it. "Looking for a needle in a haystack" may be a thankless task — but it is not impossible. Looking for *quality* where there is *no quality*, is both impossible and thankless.

Quality is like *natural selection*. Nature creates many *common* things, so that *out of* them may be evolved a *few* of the *best*.

Almost countless factories produce "goods," but out of their number a *relative few* produce the *best wares*.

Opportunity is said to often "make the man," but the man *could not be made* were he not *qualified*.

The shop-keeper places certain price tags on his wares, and gauges his prices by the *cost to him*. The buyer should understand that the dealer is not going to *fool himself*, although the cheap goods take up *as much space* and call for as much overhead as the *costly* wares. The dealer handles *all kinds* because he *expects to sell* all kinds.

Quality is *self-evident before purchase*, only to those whose experience has *taught* them quality's desirability.

The lumber buyer employs an inspector who *knows* lumber. The hardware man has a buyer who *knows* hardware. But those who do not know *before* a purchase, must learn *after* they begin to *use* what they have bought.

Quality needs no proof beyond itself, although much persuasion may be needed to make a sale to a person who does not understand that *needs demand quality*.

The individual's *own* needs do not do all the governing of a purchase. *What others have* is also important. *Competition* has something to say about it, even though it may be only the competition, *pride*.

Quality is like the court — and the superior elements entering into *quality* are like the *law*. The court *decides*.



FOR MARCH, 1917

Full of Good Sense, Good Humor, with a Hunch for R-W Products
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132 Pearl Street Boston
1735 Boatmans Bank Building St. Louis
321 Plymouth Building Minneapolis
London, Ontario

Volume 5

D. M. KAGAY, *Editor*

No. 3

What Are We Going to Do With 1917?

THE New Year has to be solved. It ought to mean *More Business* for you. That is for you to decide. People are *making more* and *spending more*. They are doing their buying *quicker*. Is *your* store going to be a real magnet that draws them, or are they going to pass right by and go somewhere else?

Speed in trans-
acting business



HOW WILL WE GET THIS BUSINESS

means *special effort* in attracting business. The display has to start from the show-window and run clear through to the back door. The time



BUSINESS MAGNET

has passed when the displays were nothing but a veneer. The ads have to have *sparkle* in them. Every salesman on the floor

has to be alive to the different opportunities represented by the goods that are ready to sell.

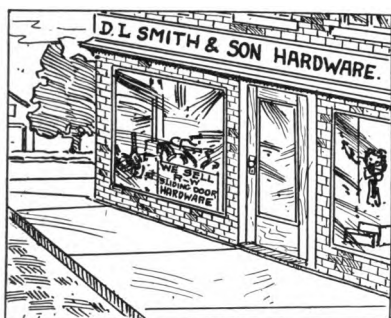
The year 1917 is going to mean a *gold mine* for the merchants who go after gold. But it won't even mean pig-iron to the fellows who think that the methods of 1914 are still *good enough*.

The past year, the U. S. A. has been remodeling its business experience. It doesn't make any difference how small the town is, *somebody* is going to bring new ideas in — *someone* is going



away to the larger places to see how the merchants attract trade.

Every shelf, every counter, every square foot of the floor *counts!*



There should be *real intensive salesmanship* in the form of reminders, envelope slips and folders going out

with all the statements. There should be some snappy form letters making a drive first on one line and then on another — according to the season and the needs. The ads must talk propositions, facts and figures, and they must talk *advantages*.

A little more careful driving here, and a little more watchfulness there — can't help bringing more business. The very air is filled with business. *Everybody* wants to *improve* his property. People



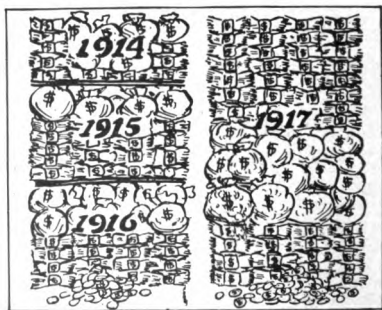
are not waiting for things to wear out — they are getting *new* things to take the place of old ones.



Many may be ready *now* for R-W Hangers — for other goods!

Whenever a customer comes into your store and says that he wants something, he has found his need before you have found it. He has a *dozen* needs back somewhere in his mind that *you* can wake up if you just get to him with the right suggestion. If your goods are *easy to see*, that man is going to see something that he wants — something he would not have thought about without the suggestion.

Make your 1917 Model of Sales Development as good as any other three years combined. The *rewards* merit it. *Now* is the time to get a flying start because this year is getting a little older every day.





The Secret of Hanger Satisfaction



MANY buyers object to price because they do not like to pay for names. They do not reason that names are popular because service and experience have made them so.

To keep up the name means constant improvement in facilities, equipment and working forces; insuring quality by using the best of the best raw materials, — and then testing the goods after they are made.

These are the things that enter into a name.

A name for goodness or fairness attracts names.

Buyers must eventually look for names. These names are guarantees, and prove to the careful buyer that he is getting full value for his money.

"A Hanger for
Any Door
That Slides"



R-W

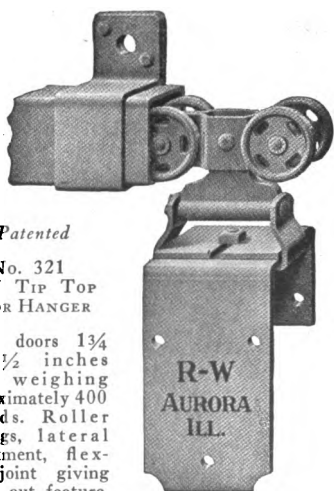
Cer Hu

The Trolley Track

Long use and years' experience have proven the box-shaped trolley track No. 31 and No. 35 types, the most satisfactory.

This track provides two runways on which the carrier wheels roll, thus distributing the load; protects the hangers from the weather, is bird-proof, jump-proof and trouble-proof.

Sold in 4, 6, 8 and 10-foot lengths.



Patented

No. 321
R-W TIP TOP
DOOR HANGER

For doors $1\frac{3}{4}$ to $2\frac{1}{2}$ inches thick, weighing approximately 400 pounds. Roller bearings, lateral adjustment, flexible joint giving swing out feature.

"A
Hanger
for
Any
Door
that
Slides"

ter
ng

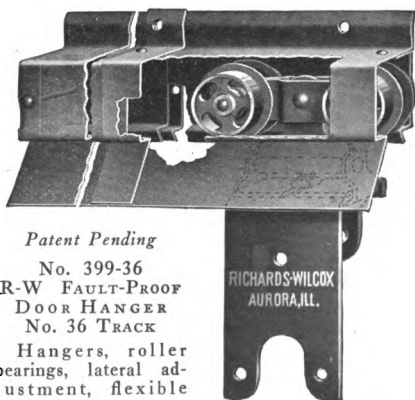
Door Hangers

The Hanger

From a mechanical standpoint the perfect design for a door hanger is the center hung type — used only in No. 31 and No. 35 types trolley track.

The four hanger wheels roll in the two smooth run-ways in the track; from the exact center of the two axles, which connect the four wheels, a pendant suspends to which the aprons which hold the door are attached. Thus the load is suspended from the exact center of the hanger — and variation of the door off center of gravity does not affect the easy movement of the hangers in the track.

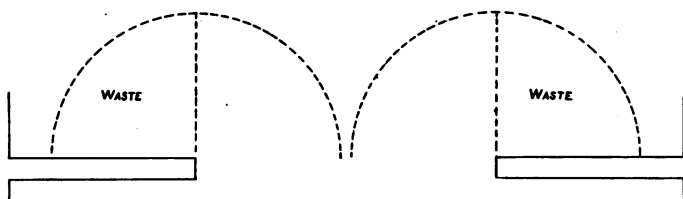
"Every
Door
Can
Be
A
Sliding
Door"



Patent Pending

No. 399-36
R-W FAULT-PROOF
DOOR HANGER
No. 36 TRACK

Hangers, roller
bearings, lateral ad-
justment, flexible
joint.



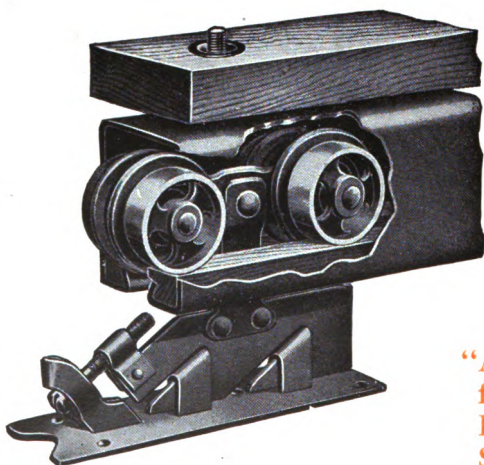
ECONOMICAL ADVANTAGES

Slide vs. Swing Doors

A SLIDING door is no more in the way than a wall. No valuable wall or floor space is wasted "behind the door" as is the case with swing doors. And the swing door requires a considerable amount of space in which to open.

No. 221 R-W Advance House Door Hangers

These center hung, ball-bearing hangers operate noiselessly in wood-lined track. Doors hung the R-W way do not sag and get out of plumb.



**"A Hanger
for Any
Door that
Slides"**

Work

I am the Conqueror of Conditions

WORK! I have a homely name. There isn't any elegance or varnish to my title. You can't pronounce my name without thinking of buzzing saws, grinding machinery, escaping steam, and the hum of electricity.

I have fed the world ever since there were people in it. I tilled the first field and planted the first grain.

I made men do things with *muscles* before they could do things with *thought*. I put the axes over their shoulders and picks in their hands, and sent them out into forests and fields.

I did these things before I told them that there was power in falling water or in coal. Only when they learned to make the best of conditions that they understood, did I show them other conditions that would help them.

I am *keeping step* with you. Through me you sell your services, hardware, sliding door hardware. And any time you try to get away from me, you lose.

Just remember that of all the wonderful machinery that has been invented, there has to be a man back of it to make it work. Inventions and plans and methods have only been my *servants*.

I never let anybody escape me. And I help you do things *better* by keeping me with you all the while. I've helped build the R-W organization.

I measure a day's beginning and a day's end, and I expect a good account of all the time between the beginning and the end.

You *need* me in your bodily activities — and your mind needs me. Some men do not take a dozen steps in an hour, but they work as hard with their minds as other men do with tools.

You need me as your partner in selling to your trade.

Everything that is worth gaining is only gained through me.

It makes no difference how easy your sale may be made, it is work that brings it.

Never desert me until you are sure that you are able to retire from business. And there are a lot of people to be sold Yet!

A Fable

Of the Salesman Who Was Very Sarcastic

ONCE Upon A Time, There was a Salesman who was Very Sarcastic. He simply couldn't Resist the temptation to Shoot back a Hot one when anyone left an Opening.

If the Janitor opened up by saying, "Mr. Smith, this is Fine weather," Smith — meaning this Salesman — would Reply, "Don't let that Soft pedal your Duty to the Furnace any."

When the Waitress over in the Eat Shop would Suggest a Dish, this Savage Chap would Snap at her — and Secretly, she called him Fido.

"Now," the Boss said one day as he Commissioned this Salesman to a Hard-nut Prospect, "when you call on Mr. Pepper, remember that he is likely to Fly off the Handle."

"All right," the Salesman agreed, "then I'll go Home and get my Belt."

"What Belt?" the Boss asked in Surprise.

"My Championship Belt," the Salesman Answered Hotly. "I am the Fellow who made Jess Willard grow Up before he Dared fight anybody. Do you suppose that I am going to let a Mere customer Throw Barbs into Me? Say, I am a Fighter from Fightville."

The Salesman finally hunted up Mr. Pepper, and was Pained to find Pepper an agreeable, Kind old gentleman, who was That considerate to Strangers, he would have Sooner lost his Right eye than Offend one.

Did you ever get All keyed up for a Big event, and then Find that it Wasn't what they Advertised it? Ever bite your Nails to the Quick in Expectation of a Row and find only Honey and Milk waiting for you?

Well, the Salesman who was Very sarcastic, was That Surprised, he didn't know what do to — and the Order came so Easy, he Knew that the Boss had Jobbed Him.

What do you Suppose he Did?

What would You have Done?

Why, he was so Taken Back — so Disappointed at Finding a Welcome — he Reformed and Became the Mildest man in the Organization!

Moral — Sarcasm is Only Egotism that needs a Little filing Down, and Half the Energy Spent in getting Ready for a Fight would Sell the Biggest bill Ever!

Daily Doings of Punk

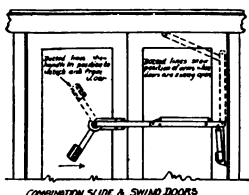


A New Safety Device

Prevents Accidents by Automatically Closing Elevator Doors. Removes Responsibility from Operator

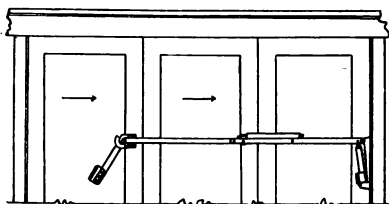
STIMULATED by the demands of insurance inspectors and legislative bodies, the Richards-Wilcox Manufacturing Company have developed a new device for closing elevator doors, which has received the unqualified approval of architects and engineers who have seen it.

This device closes the elevator door instantly and locks it against opening from the corridor. It prevents impetuous or unsophisticated persons from rushing through the door-way after the elevator has started, and makes it impossible for the operator to leave the door ajar. Elevator operators whose doors are equipped with the new door closer state that it gives them needed relief from responsibility in connection with the operation of the door and enables them to handle the elevator more safely and quickly. Occupants of buildings where the closer has been installed comment on the silent operation of the automatic closer as compared with the slamming of hand operated doors.



COMBINATION SLIDE & SWING DOORS

The Richards-Wilcox Manufacturing Company have named this invention, which is their No. 743, "The Ideal Elevator Door Closer and Check,"—a name which fits the appliance with particular aptness as it is the most substantial and effective elevator door closer and check that has been produced. Can be used with any standard make of hanger; single, two-speed, three-speed doors, doors in pairs or combination swing-out. The spring and checking mechanism are separate and can be readily regulated to suit varying conditions. Made right or left-hand. Maximum projection of the closer from face of door is $1\frac{1}{2}$ inches.



TWO SPEED DOORS

The manufacturers recommend the Ideal Elevator Door Closer and Check particularly for office buildings, hotels, hospitals, apartment buildings and business houses. They will furnish complete information and illustrations free of charge, upon request.

DIARY OF THE THIRTEENTH SON

Of thirteen brothers he was one
And sad to say, the youngest

SUN.

Hither and thither did he run,
He had so very little

MON.

His taxes they were overdue,
The water and the gas were

TUE.

There's only one thing left, he said
A wealthy maiden I will

WED.

And then he found, yes, really, rather,
That into debt he sank still far

THUR.

At last he rose and gave a sigh,
Oh! I am in an awful

FRI.

Down by the lake they found his hat;
A juryman upon it

SAT.

* * *

ALSO, IT'S THE STYLE

Mrs. Exe — "Why did you have your new dress made so short?"

Mrs. Wye — "To match my husband's financial condition."

* * *

NO DANGER

Fond Father — "My son is taking algebra under you this term, is he not?"

High School Teacher — "He has been exposed to algebra, but I doubt if he will take it."

* * *

PAST TENSE

Hearing a crash of glassware one morning, Mrs. X. called to her maid in the adjoining room: "Norah, what on earth are you doing?"

"I ain't doin' nothin', mum," Norah replied — "it's done."

* * *

OR CONGRESS

"What would happen if an irresistible force should meet an immovable body?"

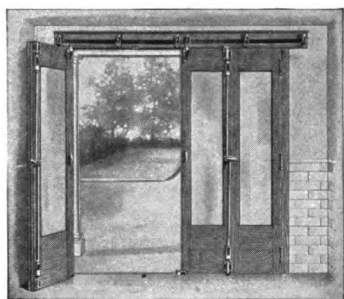
"It is not necessary for anything to happen. I maintain that arbitration is always feasible."

* * *

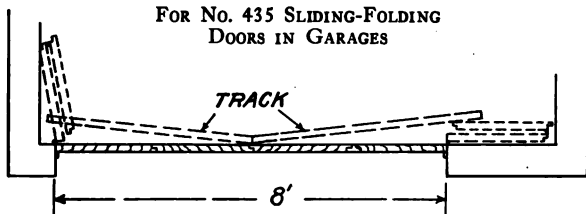
THAT ENDED IT

She — "But, dear, why do you love me?"

He — "So you have begun to wonder, too?"



FOR NO. 435 SLIDING-FOLDING
DOORS IN GARAGES



Ten Reasons Why

- Reason No. 1* — Can use three, four, five or six doors to close opening.
- Reason No. 2* — The doors fold and slide inside the garage.
- Reason No. 3* — The doors so installed occupy less room when open than single doors.
- Reason No. 4* — Make a weather-proof and tight fit when closed.
- Reason No. 5* — The doors fit flush with the jamb and in the center, no lap, so keep the cold weather out.

No. 435 R-W Sliding-Fold Garage Door Outfits

- Reason No. 6* — Doors will not sag, being hinged to jamb and supported on outer edge by hanger which slides in trolley track.
- Reason No. 7* — Will not warp at top as will wide door.
- Reason No. 8* — Permit use of all or part of opening at any time.
- Reason No. 9* — With five or six-door outfit provide a front entrance door.
- Reason No. 10* — Allow the use of narrow doors up to three feet wide, which can be plain or paneled to match residence.

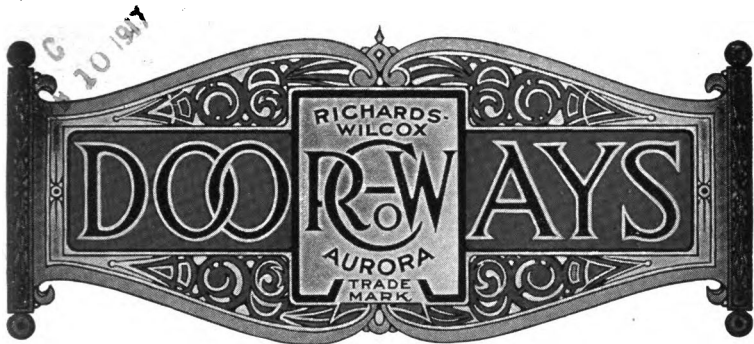
ARE THE BEST

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.





APRIL-1917

Service and Profit

THE Golden Rule is the best policy. We did not originate this thought, nor do we claim more inherent piety than we accord our neighbors — but early training and years and years of business experience have taught us that it pays to make our patron's interest R-W's interest.

¶ That's why the Golden Rule is R-W policy. And that's why R-W observe it with dogged perseverance — we have reasoned the thing out from the standpoint of profit.

¶ Profit is the reason for business — service is the basis of profitable business. R-W service is founded on your best interest. For that reason R-W service brings you prosperity.



FOR APRIL, 1917

Published once a month, to acquaint the Hardware Trade, the Architect and the Builder with R-W Products and Service

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

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 Milton D. Jones Sec'y & Treas.
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 1735 Boatmans Bank Building St. Louis
 321 Plymouth Building Minneapolis
 London, Ontario

Volume 5

FRED C. WEST, *Editor*

No. 4

Improved Gable Doors

By E. J. G. Phillips, *Engineer*

Richards-Wilcox Mfg. Co.

UNTIL recently, the gable barn door, through which the hay is taken to the mow, has been of rather crude form, or at least it has been hung in such a way as to be inconvenient if not difficult to handle. This may be due to the fact that these doors are not used as often as other barn doors and therefore they have been neglected and all efforts toward improvement have been directed to other doors.

One very common gable door of the older type is built in one piece and hinged at the bottom. When open, the door drops against the side of the building and hangs just below the opening. This door is so difficult to close or open that it is customary to attach the hay fork rope to the door and raise it with a team of horses in the same manner as the hay is hoisted. There is also danger that, due to corrosion of the screws or the rotting of the wood, the hinges may break away and let the door fall. Another of the older types is a vertical lift door sliding in wood guides at each side. Ropes which are attached to the door and run over pulleys near the top of the opening, are used to lift or lower the door. Two men are required to raise large doors. Some of these doors work fairly well when rats do not gnaw the ropes and doors do not bind in the guides.

Gable Doors on Vertical Track

An improved form of vertical doors is shown in Figures 1 and 1a. The doors are guided by four rollers running in steel tracks. Two rollers are attached to each side of the door. These are shown in the outside elevation. Steel cables are used to sup-

port the doors instead of ropes. These cables run over sheaves of generous diameter, and the doors slide very easily when properly counter-balanced. The exact arrangement depends considerably upon the construction of the building. Two methods are illustrated in the detail Figure 2. The method shown at the left permits the use of a square weight and should be used when there is room for the weights above the plate and the end braces of the barn frame. If the weights must hang below the truss, the method as shown at the right of Figure 2

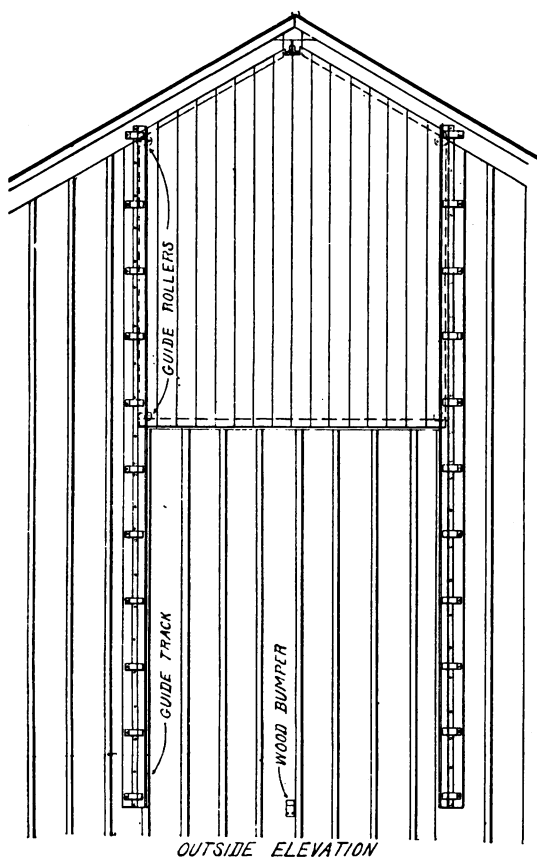


FIGURE 1

may be used. In this case, attach the cable to the center of the door and set the pulley lower down than shown in Figure 1a. Figure 3 shows a method of compounding the weights, which may be resorted to when necessary to work in limited spaces. The weight must then be twice as heavy, as it moves only half as far as the door. An extra pulley is required to each weight. Concrete makes neat, cheap and readily obtainable weights. Weights should be equal to the weight of the door. Estimate 137 pounds per cubic foot for concrete. The weights should be boxed in to prevent them from becoming obstructed with hay or otherwise.

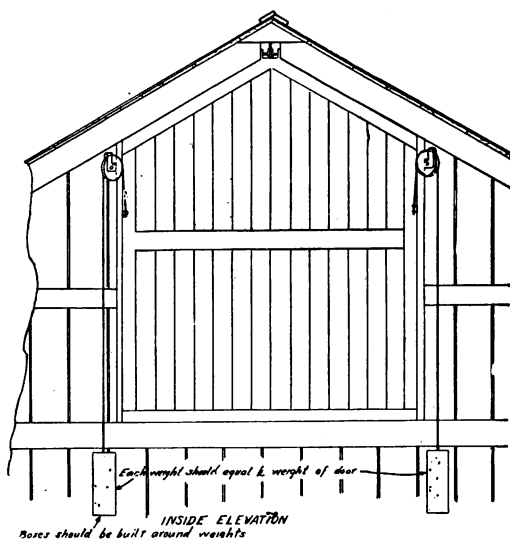


FIGURE 1A

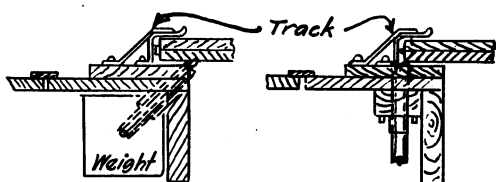


Figure 2. Cross Sections Showing Two Ways Pulleys may be Attached.

FIGURE 2

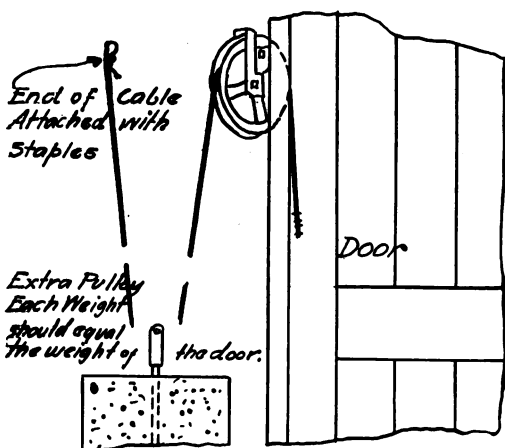


Figure 3. Showing Weights Compounded. Used when Space for Travel of Weights is Limited.

FIGURE 3

Gable Doors on Inclined Track

Figures 4 and 4a illustrate a pair of doors sliding on incline tracks located just below and parallel to the roof. This is perhaps the best way of hanging gable doors when the building will permit. The doors are counter-balanced by weights connected to the doors by steel cables. The weights required vary according to the pitch of the roof, but seldom exceed 50 per cent of the weight of the door. In this case a shorter movement of weights is required. One cable pulley for each door is attached to the top of the opening near the center and another pulley is located inside the building in a position convenient for sliding weights. This is clearly shown in the illustrations. The bottom

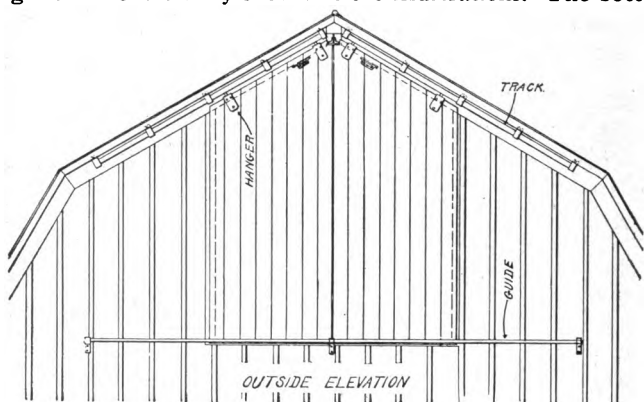


FIGURE 4

of the door is confined to the building by a tubular guide. This holds the door close to the building in any position, open or closed. The center and end brackets form bumpers to stop the doors in either open or closed positions.

In roofs of the gambrel type there may sometimes be insufficient space to slide the doors to the side, especially if the door is wide and the building rather narrow. It would then be advisable to use the vertical door previously described.

These improved doors can all be opened or closed very easily and a comparison with the older types will at once demonstrate their points of exceptional merit.

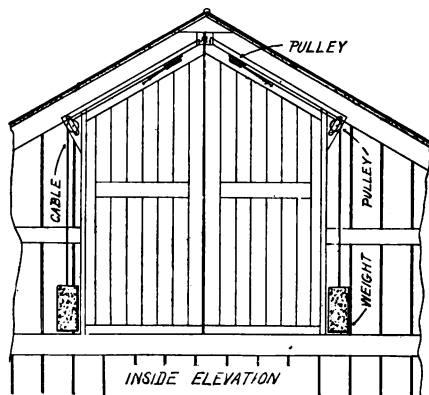


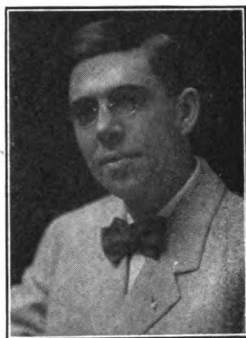
FIGURE 4A

Personnel of R-W Service

COMMENTS of kind friends approving the methods and service of the R-W organization reach our pleased ears frequently through correspondence, reports of our representatives and other means of communication.

We are human, and it gives us a comfortable feeling inside and a new determination when you acknowledge our efforts to give a dollar's worth of material and service for a dollar.

One of the elements of R-W service particularly valuable to the public is our Engineering Service Department. This department bears a vital relation to the hardware dealer, the architect, the builder, anyone who plans or builds doorways, rendering engineering service on special installations such as garage sliding door equipment, automatic fire door fixtures, industrial overhead carriers, elevator door installations, sliding partitions for schools, churches and buildings of every description.



A. J. EGGLESTON

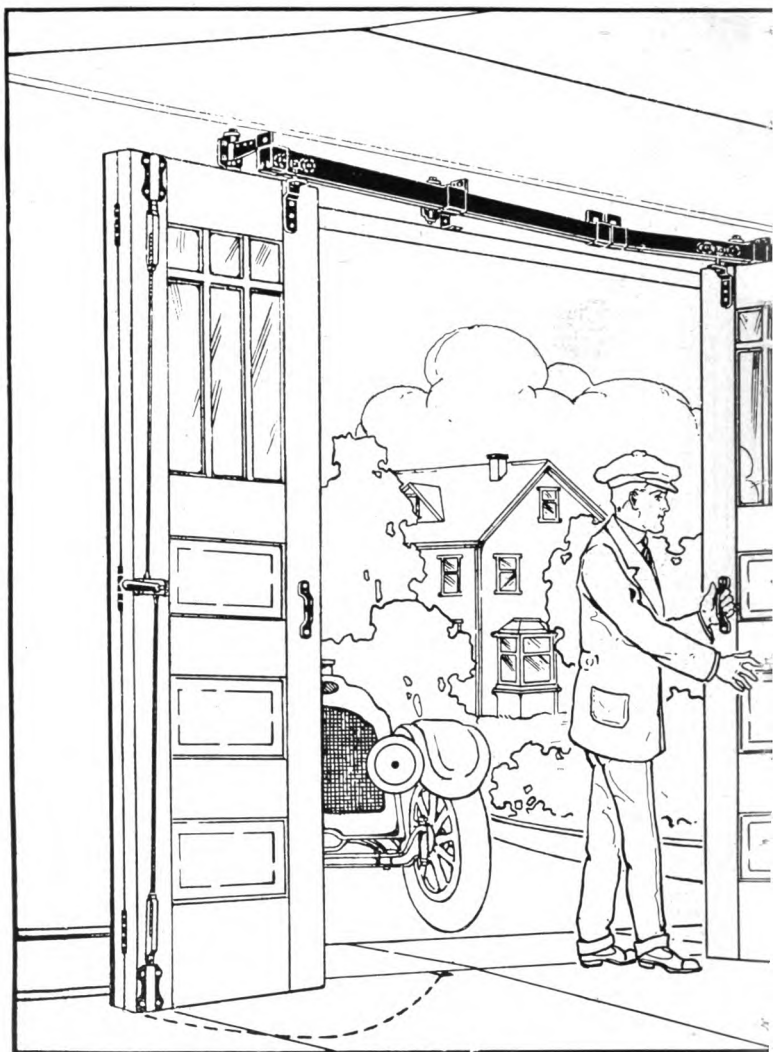
The head of this department must be a man with ability, long experience and exceptional judgment. Mr. A. J. Eggleston, recently appointed Manager of this important division of the R-W organization, is well known to the trade and the wisdom of his appointment will be instantly recognized. His experience fits him peculiarly for the management of this department. He has been in the hardware specialty field during the whole of his business career, having spent nineteen years with the present company. He has seen service in every branch of the organization, including the manufacturing, engineering and sales divisions. This breadth of experience makes his assistance highly valuable to those who have doorway and carrier problems to solve. Mr. Eggleston has had charge of this company's interests in the Northwestern section of the United States during the past two years with headquarters at Minneapolis. Under his direction the Minneapolis organization has developed into a strong sales unit.



L. S. STARKS

Before you build doorways or install overhead carriers, write Mr. Eggleston. His advice is free and it is worth having.

Mr. L. S. Starks takes the management of the Minneapolis Branch. This territory remains under the advisory supervision of Mr. Eggleston, who has paternal interest in its development and will visit the trade there from time to time.



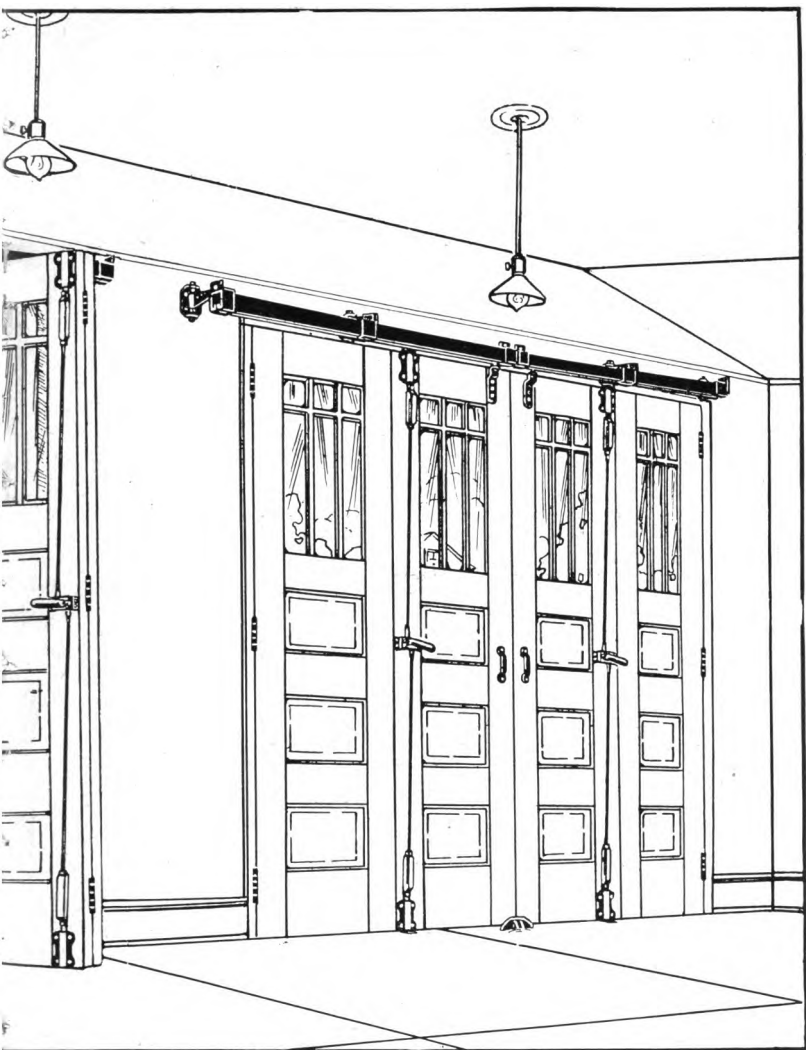
An Ornamental Utility for

Richards-V
Sliding Do

Doors fold back inside garage out of the way. Weather tight. Can't sag. Equipment accommodates 3, 4, 5 or 6 doors, to suit requirements.

Richards-Wilcox

AURORA, IL



Private and Public Garages

Wilcox No. 435
for Equipment

For public garages, equipped with electric opener and closer, manipulated by push buttons from any place in the garage.

Manufacturing Co.

ILINOIS, U.S.A.

Say, "Hullo!"

W'en you see a man in woe
 Walk right up and say, "Hullo!"
 Say, "Hullo!" an' "How d'ye do?"
 "How's the world a-usin' you?"
 Slap the fellow on his back,
 Bring your han' down with a whack;
 Waltz right up, an' don't go slow;
 Grin an' shake an' say, "Hullo!"

Say, "Hullo!" an' "How d'ye do?"
 Other folks are good as you.
 W'en you leave your house of clay,
 Wanderin' in the Far-Away,
 W'en you travel through the strange
 Country t' other side the range,
 Then the souls you've cheered will know
 Who you be, an' say, "Hullo!"

Another Kind Friend Speaks

Duluth, Minn., Feb. 9, 1917.

RICHARDS-WILCOX MFG. CO.,

AURORA, ILLINOIS.

Gentlemen: — We would be pleased to have our name put on your mailing list for the monthly copy of your "House Organ." We consider this little periodical one of the best of its kind in the country.

Hoping that the presence of this magazine in our office may be of mutual benefit, we remain,

Very truly yours,

DULUTH BLUE PRINT CO.,

ABG. AJ

A. Bernard Gustafson, *Manager.*

THE APEX OF HEALTH

A man is surest of good health between 35 and 55. In the first third of his life he is most sensitive to infectious diseases. At 40 he is at the apex of his health. After 55 atrophy begins — that is, nutrition becomes not so perfect, which causes diminution of the size and in the active function of certain organs or parts of his body. — *Ladies' Home Journal*.

OF COURSE HE DID

"You understand your duties thoroughly, don't you?" said the station master to the new train caller.

"Yes, sir; certainly, sir."

"And you know your way to announce?"

"Well, sir, I wouldn't go so far as to say that, but I know my weight to a pound or so."

MEANT WELL, ANYHOW

Mike Gilligan entered a police office and intimated that some abominable thief had stolen his watch. It was a valuable watch, but, more than that, it had been given to Michael by his father back in County Clare. He told a very stirring story about his loss. The officer at the desk was very much impressed.

"We'll leave no stone unturned to find your watch, Mr. Gilligan," he said.

"Thank ye, sir," said Mike. "It was a fine watch." And Mr. Gilligan went home and then found his watch. It had slipped from beneath the pillow and in some way landed beneath the sheets. He hurried back to the police office to report the fact and save the police further trouble. On the way he came across a gang of laborers tearing up the road for sewer purposes. "Hi, boys," called Mike, "leave them stones alone, don't turn any more, I've found my watch." — *Pittsburgh Chronicle-Telegraph*.

God put our eyes in front of our heads — let us look forward, not back.

AN ARDENT ADVERTISER

In a Montana graveyard stands a tombstone on which you may read: "Mr. Joseph Smith will repose here. At present he is living and conducts a boot and shoe store at 91 Main Street."

UNCOMFORTABLE HONORS

In 1862 an intimate friend of Mr. Lincoln's visited him in Washington, finding him rather depressed in spirits as the result of the reverses repeatedly suffered by the Federal troops.

"This being President isn't all it is supposed to be, is it, Mr. Lincoln?" asked his visitor.

"No," flashed Lincoln with twinkling eyes; "I feel like the Irishman, who, after being ridden on a rail, said: 'If it wasn't for the honor av th' thing I'd rather walk'."



Dining room preparation for a party-dinner causes the hostess no embarrassment when sliding doors are installed between the rooms.

Convenience Marks the Modern Home

**R-W Sliding Door Equipment
Makes Convenient Doorways**

Noiseless, out of sight, scientifically hung,
easy to operate, out of the way.

If you don't know R-W, get acquainted.

Write Now

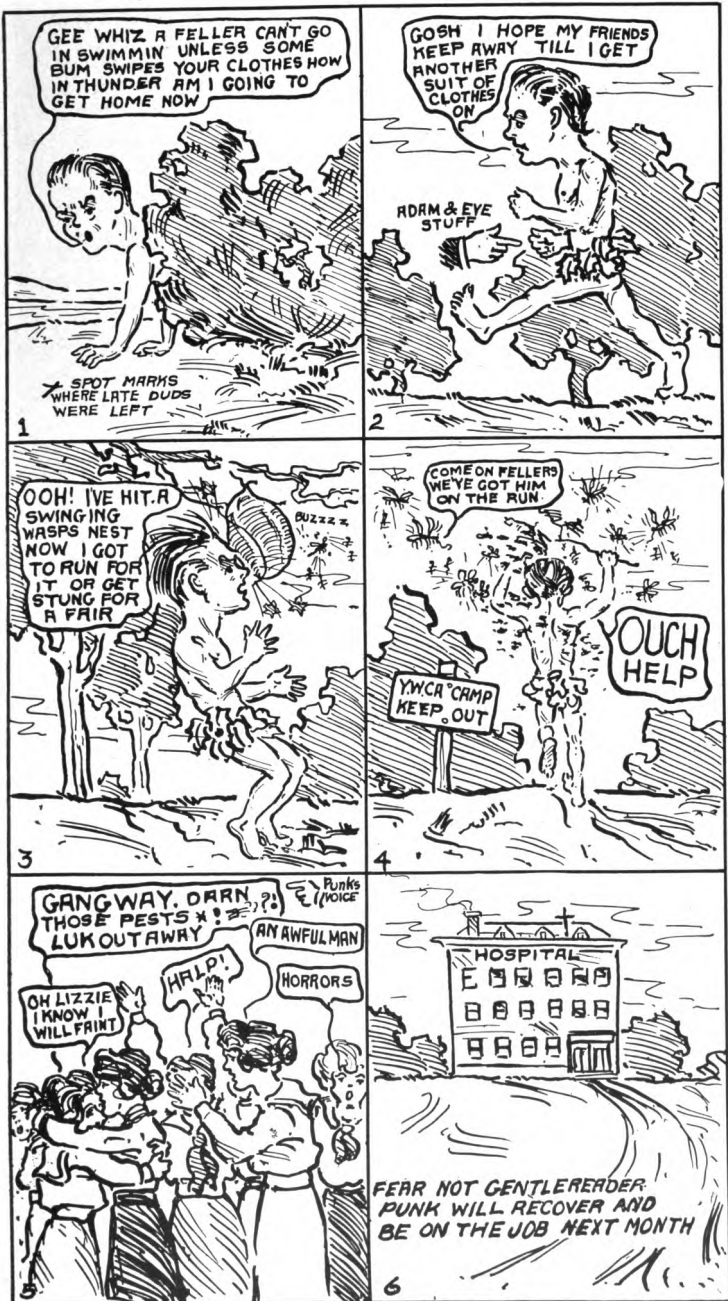
Richards-Wilcox



**MANUFACTURING CO.
AURORA, ILL. U.S.A.**



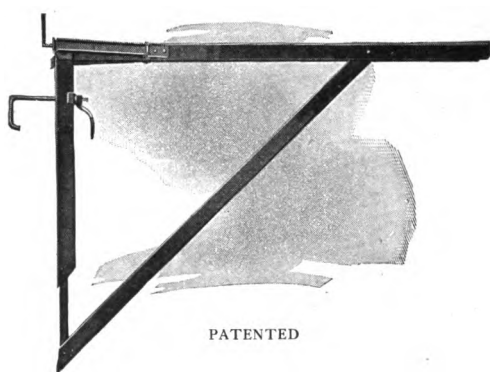
Daily Doings of Punk



Tips to the Trade

BUILDERS who have used R-W Steel Folding Brackets are enthusiastic about them because of the safety the brackets assure to workmen, and the convenience with which they are handled and stored.

Folded, they occupy space about two inches square, and five or six feet long, depending on the size of the bracket. They are instantly ready for use and can be instantly folded for transportation or storage. The strongest bracket made and the most easily applied. Cost no more than wood brackets and will last a life time. Contractors state they save their cost on a single job which requires two dozen brackets.



All R-W building brackets are provided with hook and tail screw for fastening bracket in studding. Sway braces hold the bracket rigid and prevent it from swinging from side to side.

Made in two styles and several sizes to accommodate the requirements of any individual builder. Black japan finish.

The rights covering the use of this bracket are controlled by the R-W Company through U. S. letters patent.

Particular information regarding builder's brackets will be cheerfully furnished upon application to the Richards-Wilcox Mfg. Co., Aurora, Illinois.

Free Want Ad Section

This space is reserved for you. Your ad may carry your address or we will key it and forward all replies promptly.

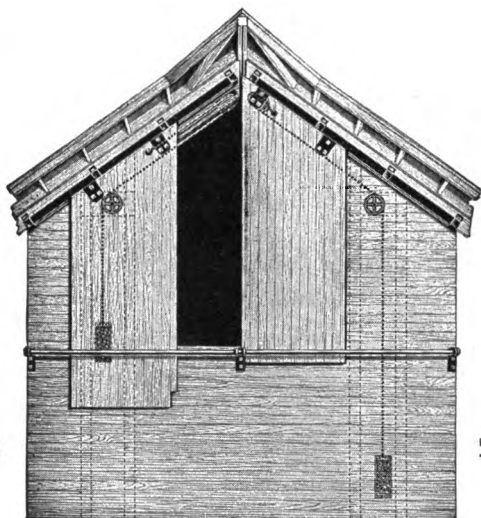
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OPEN FOR POSITION or location in South, or the South-west, a civil and structural engineer, architectural and mechanical draftsman. Buildings. Large experience in general construction. References. Address, J. W. Miller, 410 Martin Street, Newcastle, Pa.

POSITION WANTED — By young man of 21, as Rodman or Chainman with surveyor or surveying party. Am willing to leave town. Have worked as architectural draftsman for four years, and have had some experience in surveying. Can furnish A-1 references as regards ability and integrity. Address, "L. S., care Doorways, Aurora, Ill."

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R-W Gable Door Fixtures

ADD to the barn's appearance, avoid possibility of slamming doors injuring the barn, make an inaccessible part of the barn weather-proof.

Track is mounted parallel with the roof, and the hangers are attached in the same manner as on any barn door. Each door is counter-balanced by weights attached to a steel cable, which passes over two cable pulleys located above each door. Doors can be lowered or raised easily, permitting the use of all or part of the opening, as desired.

Steel guide holds bottom of doors against building when closed, and also acts as guide and stop when opened.

Particular Information
Cheerfully Furnished

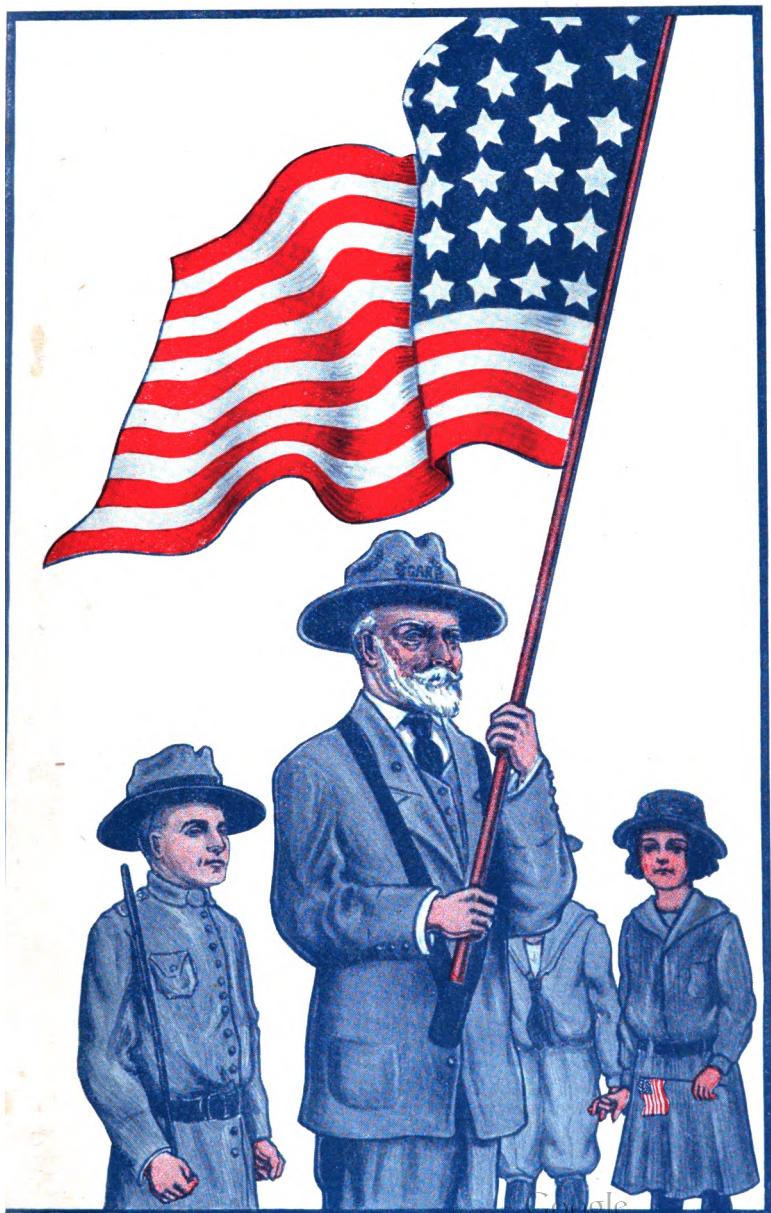
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MANUFACTURING CO.
AURORA, ILL. U.S.A.



"A Hanger for Any Door that Slides"



The Man Who Wins

The man who wins is an average man,
Not built on any particular plan,
Not blest with any particular luck—
Just steady and earnest and full of
pluck.

When asked a question he does not
guess,
He knows and answers "No" or
"Yes";

When set a task the rest can't do,
He buckles down till he puts it
through.

Three things he's learned: that the
man who tries

Finds favor in his employer's eyes;
That it pays to know more than one
thing well;

And to hold the tongue when others
tell.

So he works and waits till one fine day
There's a better job with better pay;
And the men who shirked whene'er
they could

Are bossed by the man whose work
made good.

For the man who wins is the man who
works,

Who neither labor nor trouble shirks,
Who uses his hands, his head, his eyes,
The man who wins is the man who
tries.



FOR MAY, 1917

Published once a month, to acquaint the Hardware Trade, the Architect and the Builder with R-W Products and Service

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Volume 5

FRED C. WEST, *Editor*

No. 5

Solving the Garage Door Problem

Treatise by E. J. G. Phillips, Engineer, Richards-Wilcox Mfg. Co.

R-W No. 435 SLIDETITE Equipment

THE private garage is one of the comparatively new buildings which has come into existence, and with its coming has brought new problems to be solved. Its style must be in keeping with the automobile to be housed and its architecture should



FIG. 1 — SLIDETITE FIVE-DOOR OPENING



FIG. 2 — THE DOOR SHOWN NEARLY OPEN

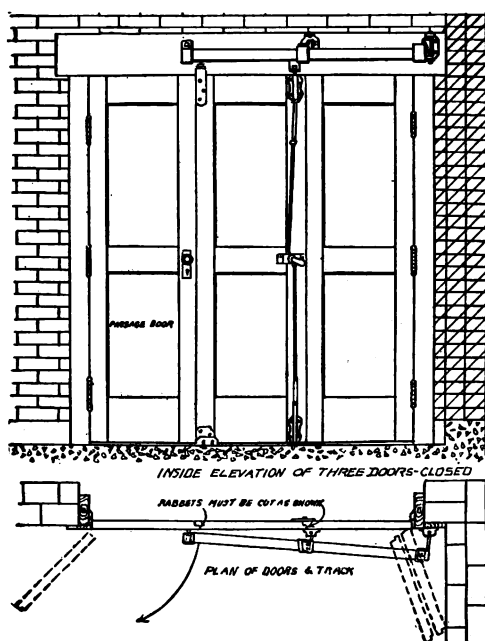


FIG. 3 — INSIDE ELEVATION OF THREE DOORS
SHOWING THE HARDWARE

harmonize with the residence to which it belongs. Plenty of room for the car and a liberal allowance of space to work around it must all be provided without making the building unduly large or occupying more than the frequently limited amount of ground space. The doors must occupy the greater part of one

Door-Ways

side of the building and a place must be found for them when the doorway is to be opened. Without doubt, the doors should be inside of the building, but very little space inside of the garage can be appropriated for use in the movement of the doors. It is the problems arising in connection with the door question that will be dealt with in the following paragraphs. Several

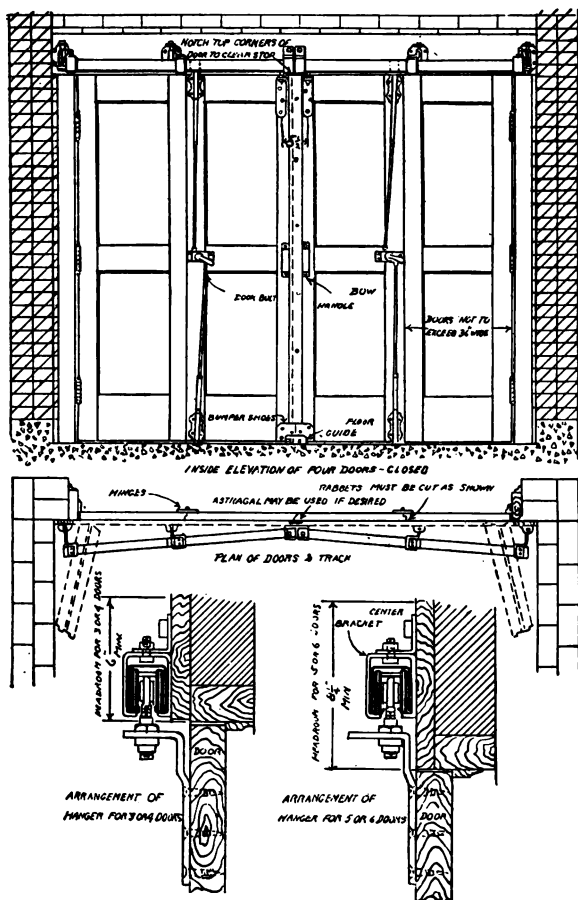


FIG. 4 — INSIDE ELEVATION OF FOUR DOORS WITH DETAILS OF HANGER ARRANGEMENT

general types of doors designed especially for garages will be shown and the various applications will be described. Although this article refers chiefly to private garages, a number of the plans suggested are also suitable for public garages.

Door-Ways

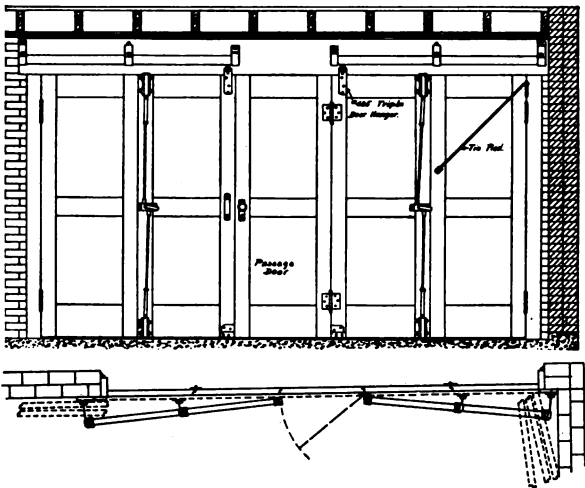


FIG. 5 — FIVE DOORS IN WHICH THREE FOLD TO ONE SIDE AND TWO TOWARD THE OTHER

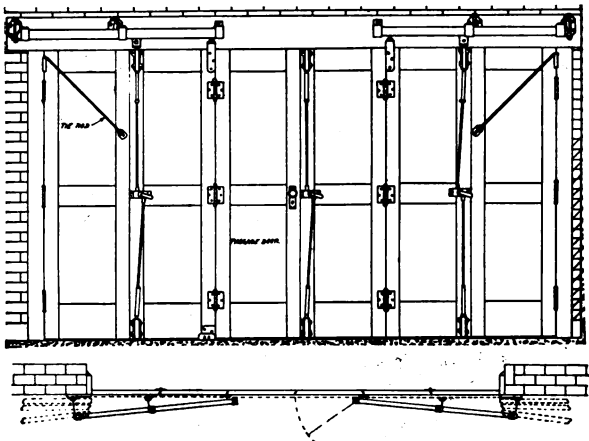


FIG. 6 — THREE DOORS FOLD TOWARD EACH SIDE

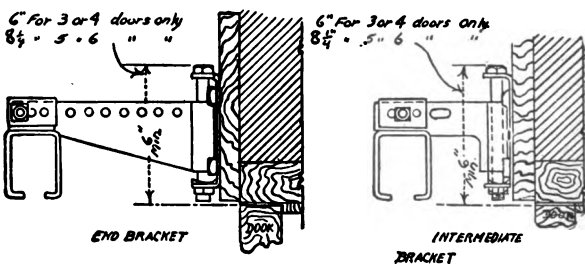


FIG. 7 — DETAILS OF THE END AND INTERMEDIATE BRACKETS

Door-Ways

The colonial brick garage shown in Figs. 1 and 2 illustrates a comparatively new type of garage door, the general feature of which is the use of a number of narrow doors hinged together in two sections and folding toward the sides of the opening. The illustrations show an opening closed by five doors, but the idea is not limited to this number of doors. Three, four, five or six doors per opening will meet all requirements. These doors fold inside of the building, but being narrow, do not require a great deal of space in which to operate. The second door from the jamb is always supported and guided by a hanger sliding in a trolley track. This feature also gives positive control of the doors. As may be noticed from the plans, the doors fit flush in the door frame and the joints between the doors are rabbetted so that a very tight job is the result.

All the doors should be made the same width over all and the rabbets should be arranged exactly as shown on the plans. A door stop is fitted around the sides and top of the opening.

Locate the center of the hangers $2\frac{3}{4}$ inches from the edge of the door on four-door openings, but for three, five or six-door openings the hanger apron should be set flush with the edge of the door. The top of the hanger apron may be set in line with the top of the door on three or four-door openings, but on five or six-door openings, it should be set about $2\frac{1}{4}$ inches above the top of the door, as in Fig. 4. The end of the track over the hanger when the doors are closed is set close to the wall, but the outer end is supported at varying distances from the wall by adjustable track brackets, the distance from the wall depending upon the position in which the doors stand when open. The end and intermediate brackets are shown in Fig. 7, and attention should also be directed to the vertical adjustment by which the track can be carefully leveled so the hanger will rest in the track at all positions without unduly straining the hinge fastenings. The plans show the doors standing at different angles, depending upon the wall space adjoining the opening in the different plans. Any angle or position of the doors may be obtained by adjusting the outer end of the tracks away from or



Window Display that

This window display was made by the Adam Decker Hardware Company as a result of the sensation created at the

R-W No. 435 SLIDETITE

What They Did—

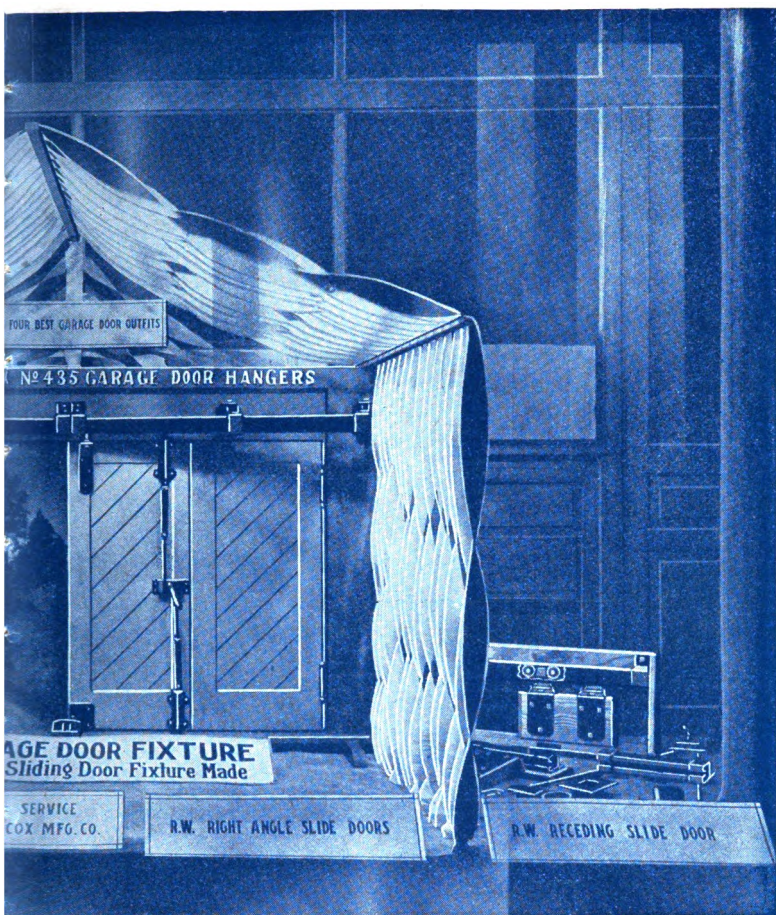
Representatives of the Adam Decker Hardware Company were so impressed by the model of R-W Slidetite equipment exhibited at the convention that they secured permission to use it in their window as illustrated above. The intense interest created by this window display and literature sent by the Adam Decker Hardware Company to Architects, Contractors and Carpenters in their territory has already resulted in more than enough business to pay for their effort. Other hardware companies have already applied for this full size working model of the Slidetite Equipment to be used in window displays. Among them are: Morison's, Minneapolis; Kelley Hardware Co., Duluth; Keifer-Haessler Hardware Co., Milwaukee.

Write Today for

Richards-Wilcox

AURORA, ILL.





What Brought Big Results

Richards-Wilcox Hardware Company, of St. Paul,
Minnesota Retail Hardware Convention by

Garage Door Equipment

What You Can Do—

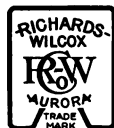
We are constructing additional models similar to the one illustrated, and can furnish either this full size working model or a smaller model of the Slidetite Garage Equipment to our patrons who are willing to put forth the effort necessary to create an interest similar to that secured by the hardware companies mentioned.

R-W Slidetite Garage Door Equipment is the most convenient, ornamental and satisfactory garage door hardware manufactured. It makes friends wherever it goes. Every customer you sell the Slidetite Garage Door Equipment will be a booster for your business and this is an exceptional opportunity to begin an advertising campaign which will put your store so far in the lead on garage door equipment that its effect will last through the years.

Particular Information

Richards-Wilcox Manufacturing Co.

St. Louis, U.S.A.



Door-Ways

[Continued from Page 5]

toward the wall. The doors are locked by top and bottom bolts, adjustable for varying heights of doors.

The plans and interior elevations, Figs. 3 to 6, show the necessary hardware for trimming three, four, five or six-door openings. In the three-door opening, Fig. 3, two doors are hinged together and fold toward the right. The third door is hinged to the opposite jamb and is used as a passage or entrance door. This is particularly adapted to a small garage with an 8-foot opening and no other entrance. Two doors fold toward each side in Fig. 4. The four-door openings should only be used when there is another entrance, but the three, five or six-door openings all have one passage or service door to be used in walking in or out, thus making it unnecessary to open a large door or a number of doors. The passage doors are locked with regular cylinder locks.

Three doors fold toward one side and two toward the other side in Fig. 5. This is similar to that used on the garage shown in Figs. 1 and 2. The center door in this case is the passage door. The door to which it is hinged is held rigidly in place by the top and bottom bolts, the floor guide and the hanger.

The use of the passage door is clearly shown in Fig. 1. In Fig. 6 three doors fold toward each side. The door to which the passage door locks in the center of the opening is held securely in place by the top and bottom bolt. This arrangement provides for openings as wide as 18 feet, which covers the range of ordinary requirements. The cross-sections at the bottom of Fig. 4 show the hanger attached to a cased opening and also to an opening which is faced flush with the inside walls.

As noted previously, these illustrations show the heights at which the hangers are located on the doors for different combinations. The minimum headroom is 6 inches for three or four doors and $8\frac{1}{4}$ inches for five or six doors. The doors should not exceed 3 feet in width. When three doors fold to one side, as in the five or six-door openings, the tie rod or brace will assist in supporting the doors and keep them from sagging and dragging on the floor.

Individuality of R-W Service

Engineering Department

YEARS ago when the automobile was a greater novelty than the present-day flying machine and the luxurious limousine was a dormant embryo in the oblivious mind of its creator, man conceived the idea of sliding door hangers for barns.

In those early days of the door-hanger industry a handful of far-sighted men became enthused with the conviction that sliding door hangers embody a valuable utility for the convenience of man; founded the organization now known to the world as the Richards-Wilcox Manufacturing Company of Aurora, Illinois, and took up the development of sliding door hangers.

These pioneers of the door-hanger industry had little conception perhaps of the present models of perfection on which the doors operate in our parlors, churches, schools, garages, but their industry was founded on service to mankind and that service has ever been and still is the key-note of R-W progress.

Today the Richards-Wilcox organization is known not only for the exceptional service rendered by its products but for the personal service which it gives its patrons. To this end, the Company maintains a department of Engineers trained to solve problems of a special nature which confront dealers and others interested in the construction of doorways.

This Engineering Department is under the personal direction of Mr. E. J. G. Phillips. Mr. Phillips is an Engineer and Mechanic of exceptional ability and has a knowledge of doorway problems gained through years of practical experience and research. The Department of which he is chief co-operates with the dealer, the builder and the architect whose experience may not happen to cover the particular problem presented in connection with special installations covering Sliding Doors and Partitions, Overhead Carriers, Elevator Doors, Fire Doors and similar matters. Their cumulative knowledge gained through years of experience, places at the disposal of our patrons a reservoir of information impossible to secure from any other source. Referring problems to the R-W Engineering Department has saved our patrons thousands of dollars, years of time and has made possible untold convenience.

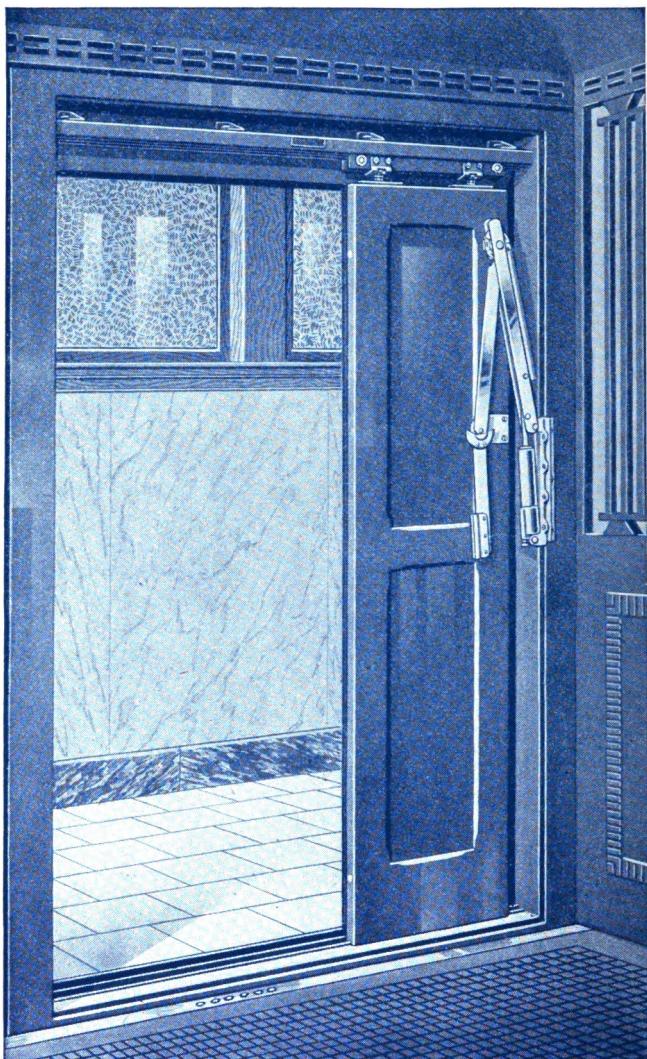
Hundreds of instances may be cited to illustrate, including:
Special Sliding Door Installations in public and private garages.
Special Electric Door Opener and Closer Installations in public garages.

Special Overhead Carrier Installations in automobile repair shops.

Special Overhead Carrier Installations in industrial institutions.
Special Sliding Partitions for schools, churches and other public buildings.

Special Sliding Door Installations for residences, covering parlor doors, closet doors, pantry doors, etc.

Special Installations of Fire Door Equipment.



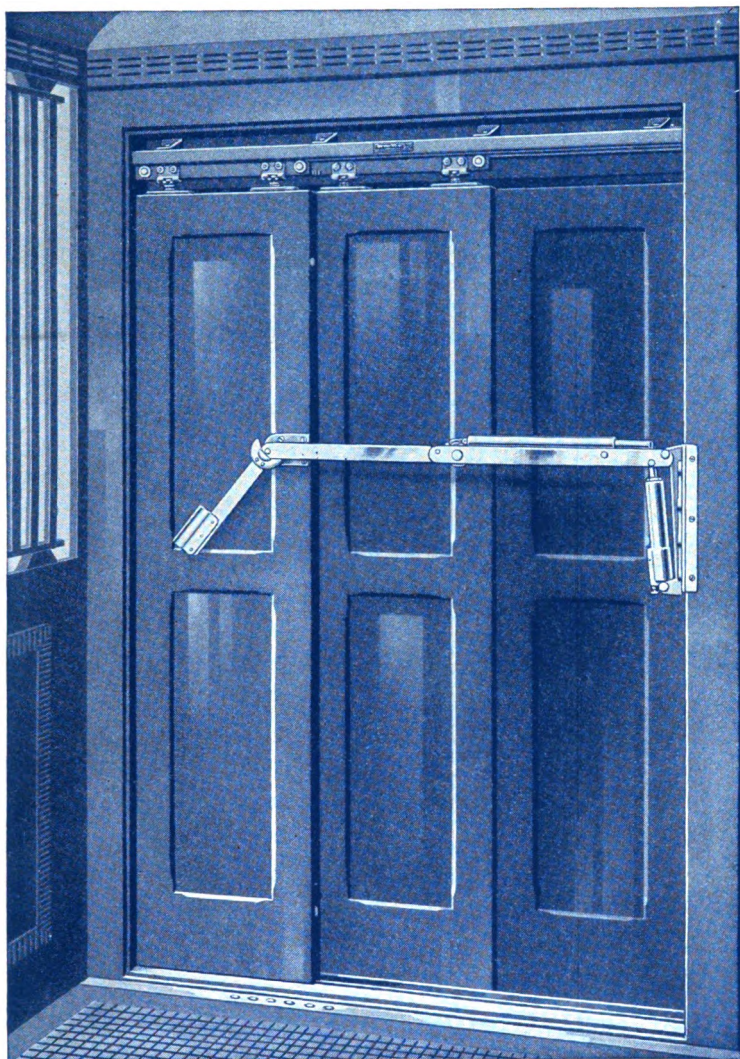
No. 743 IDEAL — DOORS OPEN

Speed, Silence and Efficiency
Characterize R-W No. 743 Ideal Elevator Door
Closer and Check

A SUBSTANTIAL and effective utility for office buildings, hotels, hospitals, apartment buildings and other edifices where elevators are used.

Prevents accidents by instantly closing the doors. Operates silently. Removes responsibility from the elevator conductor.

Can be used with any standard make of hanger; single, two-speed, three-speed doors, doors in pairs or combination swing-out.



No. 743 IDEAL — DOORS CLOSED

May be instantly detached to accommodate swinging of combination freight doors without removing bolts or any other parts.

Maximum projection of the closer from the face of the door is $1\frac{1}{2}$ inches. The spring and checking mechanism are separate and can be readily regulated to suit varying conditions. Made right or left hand.

Write for complete information and prices.

Richards-Wilcox Manufacturing Co.

AURORA, ILLINOIS, U.S.A.

"A Hanger for Any Door that Slides"

Continued from Page 9

This special service of the Richards-Wilcox Engineering Department is of particular value because it places the responsibility on the shoulders of the Richards-Wilcox Manufacturing Company.

Those who wish the advice of this Department should furnish sketches showing what is wanted, as well as written information describing conditions and telling what is to be accomplished by the proposed installation.

Richards-Wilcox Manufacturing Company unquestionably represents the most valuable source of special information available to those who have problems to solve in connection with doorways and overhead carrying equipment.

The R-W Line

Sliding Door Equipment

For Barns Warehouses

Residences Churches

Garages Schools

Elevator Door Fixtures

Fire Door Hardware

Store Ladders & Shelves

Door Openers & Closers

Benches & Vises

Door Checks & Hinges

Hardware Specialties

Mounted Grindstones

Overhead Carriers

*"A Hanger for
Any Door
that Slides"*

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OPEN FOR POSITION or location in South, or the South-west, a civil and structural engineer, architectural and mechanical draftsman. Buildings. Large experience in general construction. References. Address, J. W. Miller, 410 Martin Street, Newcastle, Pa.

POSITION WANTED — By young man of 21, as Rodman or Chain-man with surveyor or surveying party. Am willing to leave town. Have worked as architectural draftsman for four years, and have had some experience in surveying. Can furnish A-1 references as regards ability and integrity. Address, "L. S., care Doorways, Aurora, Ill."

THE WELCOME MAN

There's a man in the world who is never turned down, wherever he chances to stray; he gets the glad hand in the populous town, or out where the farmers make hay, he's greeted with pleasure on deserts of sand, and deep in the aisles of the woods; wherever he goes there's the welcoming hand — he's

The Man Who Delivers the Goods.

The failures of life sit around and complain; the gods haven't treated them white; they've lost their umbrellas whenever there's rain, and they haven't their lanterns at night; men tire of the failures who fill with their sighs the air of their own neighborhoods; there's a man who is greeted with love-lighted eyes — he's

The Man Who Delivers the Goods.

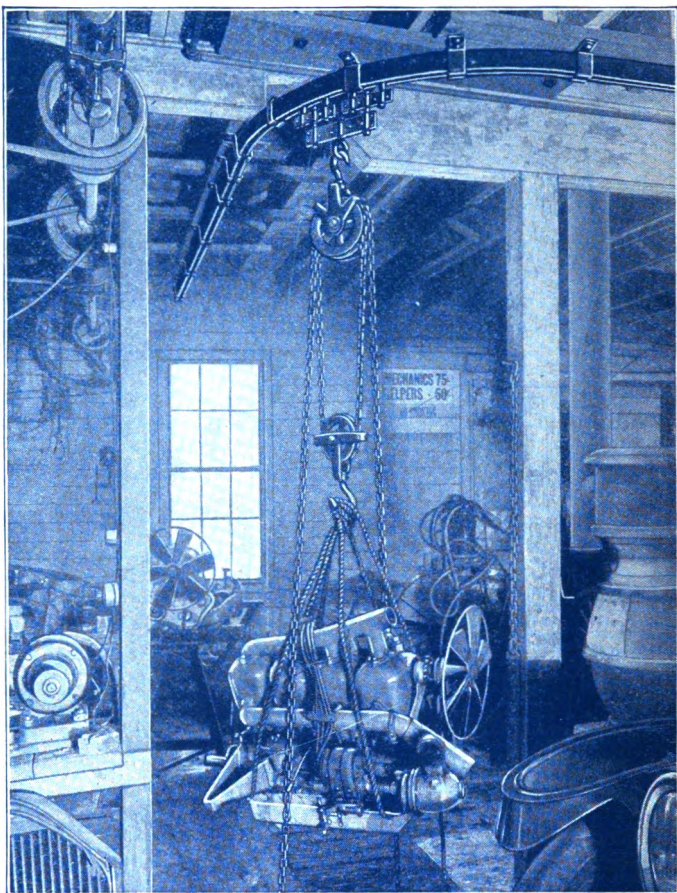
One fellow is lazy, and watches the clock, and waits for the whistle to blow; and one has a hammer, with which he will knock, and one tells a story of woe; and one, if requested to travel a mile, will measure the perches and roods; but one does his stunt with a whistle or smile — he's

The Man Who Delivers the Goods.

One man is afraid that he'll labor too hard — the world isn't yearning for such; and one man is ever alert, on his guard, lest he put in a minute too much; and one has a grouch or a temper that's bad, and one is a creature of moods; so it's hey for the joyous and rollicking lad — for

The One Who Delivers the Goods!

—WALT MASON.



Garage Overhead Carrier

THIS Overhead Carrying Equipment was installed in Arnold's Garage Repair Shop at Aurora, Ill., more than two years ago, and has given uninterrupted service lifting engines and other heavy units out of automobiles and carrying them across the shop to the repair division. Although designed to lift comparatively light loads, the owner of the garage states that this R-W Overhead Equipment has frequently carried thousands of pounds, as he finds it convenient at times to hoist monster trucks with it.

Mr. Arnold and his mechanics state that it saves them hours of time and untold inconvenience every day in the week.

An interesting description of the R-W Trolley Overhead Carrier illustrated above and the R-W I-Beam Overhead Carrier designed for very heavy loads, may be found in our free illustrated booklet entitled "Overhead Carrying Equipment."

Write today and we will mail it tomorrow.

Richards-Wilcox Manufacturing Co.

AURORA, ILLINOIS, U.S.A.

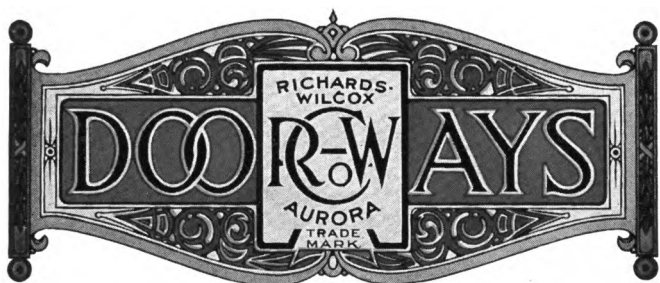


June 1917



— So is he
As a man thinketh
When he builds Doorways—
So is he comfortable
or disturbed
The rest of his days.





FOR JUNE, 1917

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Volume 5

FRED C. WEST, *Editor*

No. 6

Solving the Garage Door Problem

Treatise by E. J. G. Phillips, Engineer, Richards-Wilcox Mfg. Co.

R-W No. 235—Straight Track Right Angle Sliding Door Equipment

A GOOD example of a popular size, one-car garage is shown in Figs. 8 and 9. The building is 14 x 18 feet long, with an 8-foot opening in front. The lower part of the building is of brick veneer, while the upper half has a cement pebble-dash finish. A hip roof with wide-spreading eaves contributes to the general neatness of appearance. The opening is closed by two doors, each 4 feet 2 inches wide by 8 feet high and 1½ inches thick, which, when open, occupy positions along the side walls. One door is shown partially open in Fig. 8, and entirely open in Fig. 9.

This well-known type of door is usually called a corner door, or right-angle door, from the fact that the doors, in opening, slide around the corner into a place at right angles to their closed position, as shown on the plans in Fig. 13. The inside elevation, Fig. 10, shows all the hardware required to trim these doors.



Fig. 8 — A Good Example of a One-Car Garage with
a Door Partially Open

The hangers are first attached to the doors by the angle plate, which is made to fit over the corner of the door. The hanger for the back end of the door has four wheels and is provided with an extra long pendant. The hanger for the front end of



Fig. 9 — The Same Garage with One of the Doors
Entirely Open

the door has but two wheels and a short pendant. The angle plate of the front hanger must, of course, be sunk into the door flush to permit the doors to close tightly together. The front track, which should preferably be in two pieces, should extend

Men who don't make mistakes never take chances—and seldom get them.

entirely across the front of the building. Locate the bottom of the track about $1\frac{1}{2}$ inches above the top of the doors. If necessary to economize in headroom, this may be reduced somewhat.

Before fastening the track in place, lay it on the floor and locate accurately the point which will be directly over the center

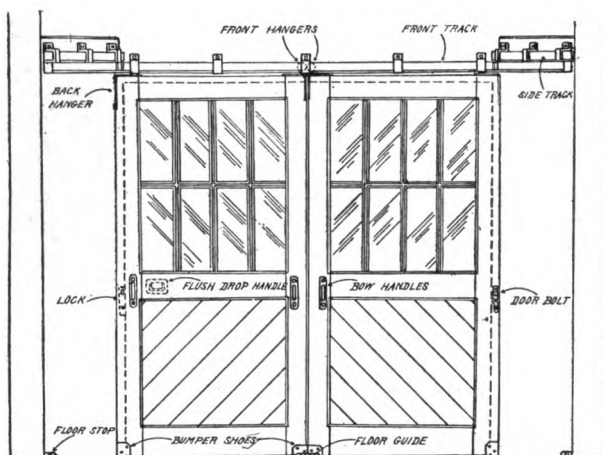


Fig. 10 — Inside Elevation of Doors Showing the Hardware Required to Trim Them

of the opening, as shown in Fig. 11. Measure the distance *C* from the front end of the doors to the center of the pendant bolt of the rear hanger. Lay off this distance on the top of the track. Draw a circle $\frac{7}{8}$ inches in diameter over the center of the track at these points. Lay the side track on the floor with one end

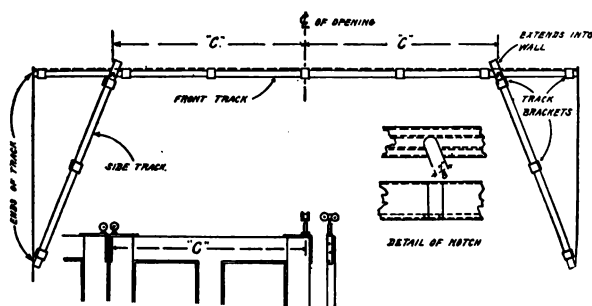


Fig. 11 — Details of Track Arrangement

opposite this circle and let the other end line up with the end of the front track, then extend lines from the side of the circle to the side of the front track at the same angles as are made by the track. Cut notches out of the front track $\frac{7}{8}$ inches wide, following the lines laid out. These notches, an enlarged detail of

Learn all the facts — and you'll choose Richards-Wilcox.

which is given at the right of Fig. 11, are to provide clearance for the pendant bolt of the rear hanger when the back end of the door is closed tightly against the jamb. To locate the notch for

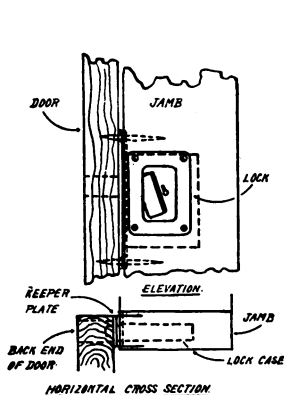


Fig. 12 — Details of the Lock

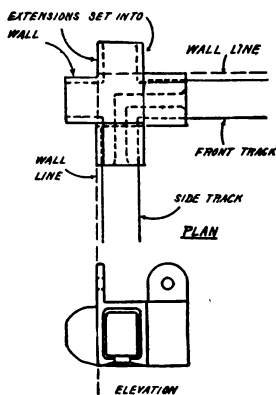


Fig. 14 — Details of Bracket Used to Receive Ends of Two Tracks at Right Angles to Each Other

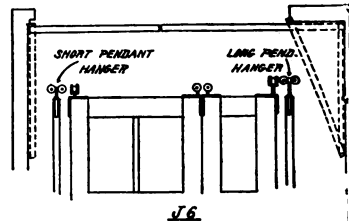
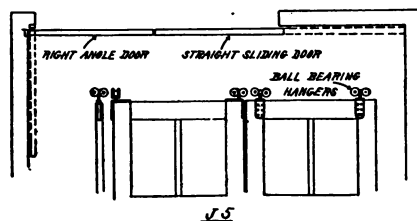
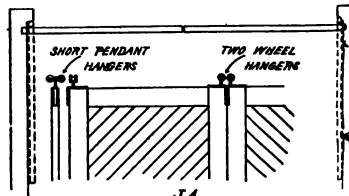
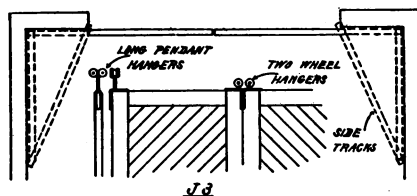
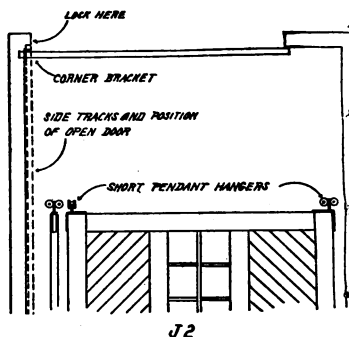
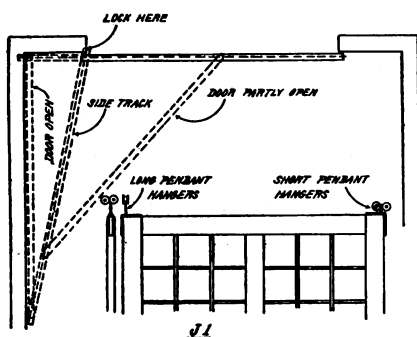


Fig. 13 — Plans and Partial Elevations of Doors Hung with Right Angle Garage Door Fixtures

The economy of sliding door equipment is in the service it renders.

a single door, locate the point on the front track in line with which the front edge of the door is to stand and lay off the distance *C* from this point.

Follow dotted lines when curved track is used.

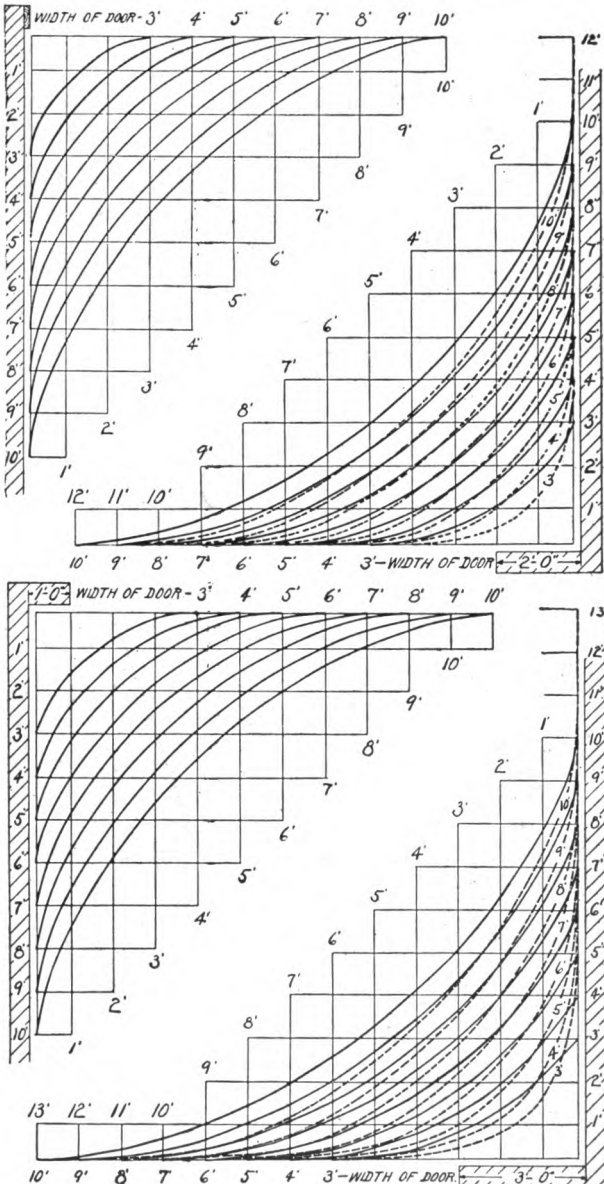
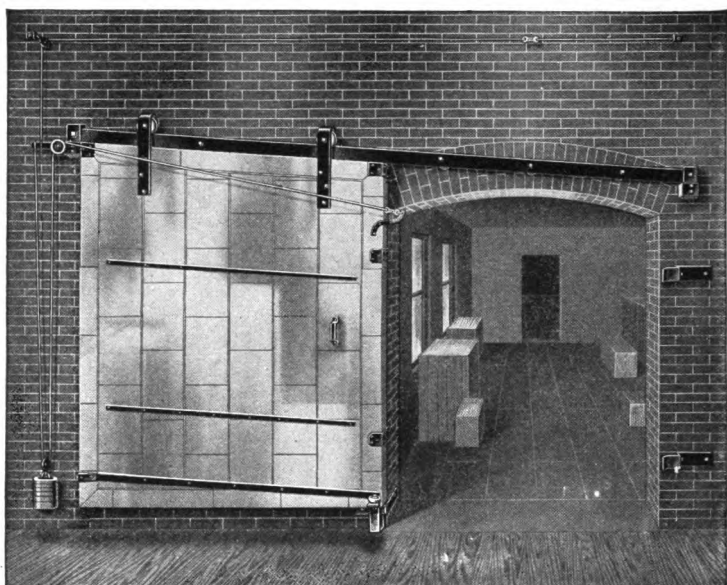


Fig. 15 — Diagrams Showing Amount of Clearance Required for Doors of Various Widths and with Different Jamb Spaces Using No. 235 Hangers.

You add Richards-Wilcox reputation to your own when you sell R-W products.



You Can

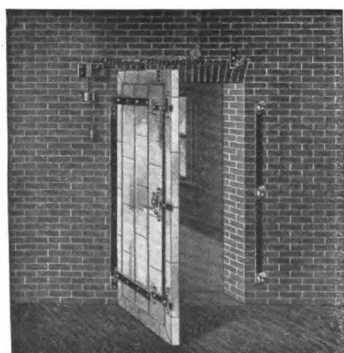
Reduce the fire hazard of your patrons, lessen the cost of a conditionally valuable service, by furnishing the factories, machine shops and other large buildings in your community

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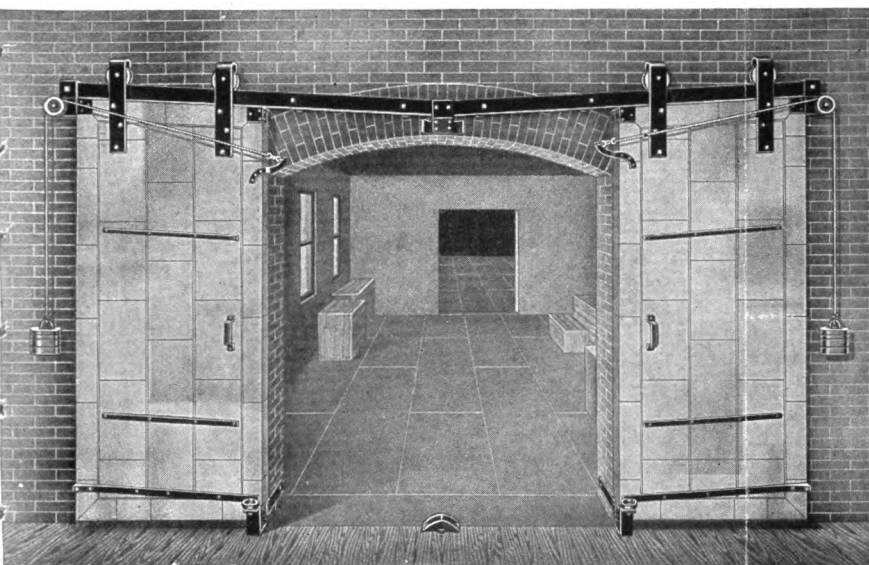
Inspected and labeled under direction of the Underwriters' Bureau are guaranteed to meet the requirements of the Insurance Companies

Perfect Protection—

R-W automatic fire door equipment assures instant action when there is a fire. At a temperature of 160 degrees or a touch of flame, the sensitive fusible links release the fire doors, which close instantly and are automatically pressed tight against the edges of the doorway by the binders, guide rollers and wedges installed for the purpose. The fire doors suspend from steel roller-bearing hangers that are counter-balanced so as to permit every-day use without reducing the efficiency of protection.



Richards



Make Money

of their insurance and gain a reputation for rendering exceptional service in shops, warehouses, garages, office buildings, freighthouses

Fire Door Hardware

Richards-Wilcox Fire Door Fixtures
Underwriters.

Supply the Demand—

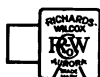
The demand is strong for efficient fire door hardware. The Richards-Wilcox line covers every condition under which you may be called upon to furnish automatic fire doors. Make the most of this opportunity. We will help you with literature, suggestions and special engineering service.

We have prepared an interesting catalog containing complete descriptions, illustrations and prices of the entire Richards-Wilcox fire door line which we would be glad to send you without obligation. Write for it today. The sooner you write, the sooner you will increase your profits.

Wilcox Manufacturing Co.

AURORA, ILLINOIS, U.S.A.

"Hanger for Any Door that Slides"



[Continued from Page 5]

Proceed with laying out and cutting the notch as described for double doors. The side tracks are located just above the front tracks and run across the corner of the building. The front end of this track extends into the wall 2 inches. It should be noted that the end of the front track for single doors should also extend in the wall 2 inches. Support the tracks with brackets two to three foot centers, according to the weight of the door. Attach the brackets for the front track to the head jamb and front walls but for the side tracks it will be necessary to provide a board to which the brackets can be attached as in Fig. 10.

To operate this door from the inside, two handles are required on each door. Ordinary bow handles are satisfactory. If the bolt illustrated is used, this will take the place of one handle. This door is locked differently from the other sliding doors in that the locks are applied to the back end of the door. For a pair of doors, one door should be locked to the jamb from the inside with the bolt shown at the right of the interior elevation, Fig. 10. This bolt is so designed that after engaging it with the keeper in the jamb, by turning the handle to the right, the door is drawn tight to the jamb, the other door is locked from the outside as shown at the left. The lock is mortised into the jamb and is so designed that when the door is closed the latch is thrown forward and hooks into the keeper plate, which is attached to the door. It can then be locked with a key. A detail of the lock is given in Fig. 12. A flush drop handle should be set in the outside of the door on this side in order to draw it shut.

Concrete floors are generally used, and when such is the case, the center floor guide and the floor stops should be embedded in the floor. These are made adjustable for different thicknesses of doors and are used to hold the bottom of the doors in place in either the open or closed position. Steel bumper shoes are used to protect the corners of the doors where they come in contact with the guide and stops.

Fig. 13 shows a number of different plans and partial elevations of doors hung with these fixtures. The first plan, J-1, is a single door two feet from each side of the building. The



DOOR-WAYS



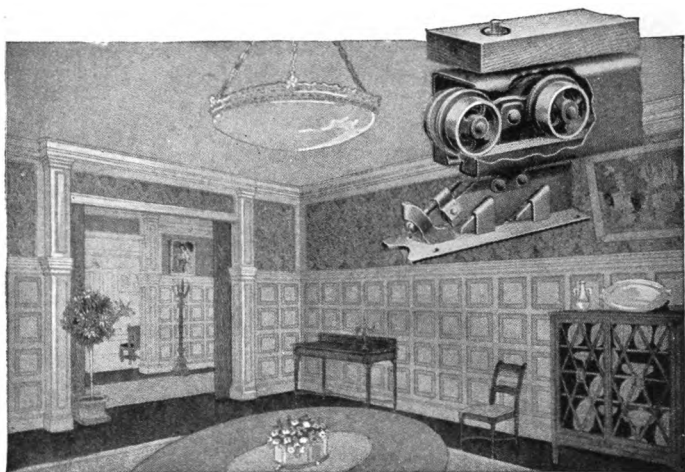
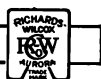
single door is hung similar to the pairs of doors described above except that a four-wheel hanger with short pendant is used on the front end of the door. This is permissible, and, as a single door is usually wider than each door when hung in pairs, it is advisable. By referring to the details, the interference of two four-wheel hangers on the front ends of a pair of doors will be evident. The plan J-2 shows a single door directly adjoining the corner of the building. This door is hung the same as the door in plan J-1, except that both tracks are set at the same height instead of one above the other. This is accomplished by the use of a bracket, Fig. 14, which fits into the corner of the building and is made to receive the ends of the two tracks at right angles to each other. The bracket itself forms the end of the track runway. Obviously, the hangers on both ends of the door will then have short pendants. The plan J-3 shows a pair of doors with an adjoining jamb space and J-4 is a pair of doors filling the whole front. The previous description covers the erection of these doors, that is, in J-3 the side tracks are set across the corner and are above the front track, while in J-4 the tracks are all the same height and fit into corner brackets. A combination of a corner door and an ordinary sliding door is given in J-5, while J-6 is a combination of two right-angle doors, one directly adjoining the side of the building and the other with a wall space between the jamb and side wall. The straight sliding door in J-5 may be used as an entrance door. The doors may be fitted very tight to the opening if directions are carefully observed.

The accompanying table provides data valuable to the builder.

Fig. 15 shows the amount of clearance required inside the building for doors of various widths and with different jamb spaces. The curved lines indicate the maximum distance to which any part of the door, when being opened, will enter the room.

				HEADROOM WITH JAMB SPACE		HEADROOM WITHOUT JAMB SPACE
Track	Size	Doors	Weights	Side Wall Brackets	Ceiling Brackets	Side Brackets Only
31	Small	1½" up	300 lbs.	7½" to 8½"	7" to 8"	5½" to 6½"
232	Medium	2" up	500 lbs.	10½" to 11½"	9½" to 10½"	6½" to 8½"
33	Large	2½" up	750 lbs.	10½" to 12"	9½" to 10½"	7½" to 8½"

You, too, will be well pleased with Richards-Wilcox Sliding Door Equipment.



Convenience and the Modern Home

The builder of every modern home strives to achieve convenience in arrangement. Doorways present a serious problem.

Richard-Wilcox Sliding Door Equipment

solves the problem. Doors hung on this equipment slide out of sight and out of the way, eliminate the danger of injury to little fingers, marring of furniture and kicking up of rugs. Permit proper lighting and ventilation — and they stay where they're put.

Roller and ball-bearings make the doors slide easy. Fibre wheels and wood-lined track make them silent. Lateral and vertical adjustments of the hangers provide for settling and shrinking of building walls. Quality of material and workmanship insures long and satisfactory service. Adaptability of the line covers all conditions and requirements — "A Hanger for Any Door that Slides."

The fact that Richards-Wilcox hangers have given perfect service for long periods of years in thousands of homes, makes it imperative that you know all about the R-W line.

We have prepared a folder giving reasons why Richards-Wilcox house door hangers prove so great a convenience in the home. We will be glad to mail to you this folder, or our catalog of the entire R-W line, without obligation. A post card will get it for you.

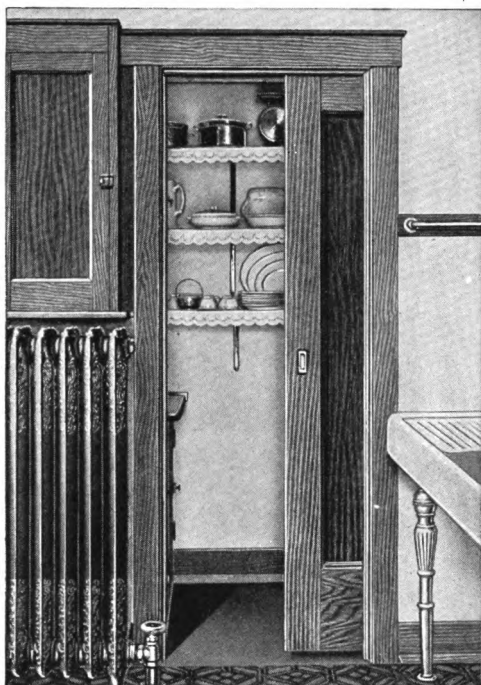
Richards-Wilcox Manufacturing Co.

AURORA, ILLINOIS, U.S.A.

"A Hanger for Any Door that Slides"

A Sliding Pantry Door Installation In a Tight Place

—
R-W
Equipment
Solved
the
Problem



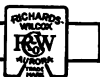
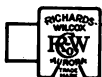
The Hole in the Doughnut

When Captain Hanson Gregory was a boy a great many years ago his mother used to make what were frequently called "fried cakes," or doughnuts. The dough was the same as is used today for crullers or doughnuts, but was either made into long twisters, given a fancy form, or even more frequently just fried in a ball.

After Hanson Gregory grew up, he went to sea and served for some time as ship's cook. He made doughnuts for the men, but he found that unless he made the outside too brown the inside was never properly done. He was thinking it over one day when it came to him that he might cut out the middle and just fry the circle of dough. He did this, and the captain's wife, who happened to be on board, thought it was a capital idea. When she went ashore she told all her friends, and they told their friends, and soon the making of doughnuts in the form of a circle became universal.

Captain Gregory was born at Camden, Me., in 1831, and at present lives at the Sailors' Snug Harbor at Quincy, Mass. When he first made doughnuts he used to use molasses instead of sugar, for sugar was scarce. He thinks sugar is better, however, and while in later life the captain had many a wild adventure as a seaman, he likes best to talk of the fact that he is the man responsible for the hole in your doughnut.

Envy is the banana peel on the road to happiness.



Windows, Pro and Con

[Copyright 1917 by Dr. W. A. Evans]

Dr. Vernon Hill, of the Chicago health department, recently made a study of windows which has the virtue of being more analytical than articles on windows usually are. He gives the disadvantages of windows as:

1. First cost.
2. Care and upkeep.
3. Loss of wall space.
4. Admission of flies and other insects.
5. Admission of dirt.
6. Weakening of walls and injury to buildings.
7. Entrance of burglars.
8. Increase of heat loss.
9. Interference with mechanical ventilation.
10. Increased liability to fire and fire panic.
11. Nuisance from noise.

As an offset the advantages of windows are:

1. Admission of light.
2. Admission of air.
3. Obtaining a view of the exterior.

In discussing the advantages and disadvantages of windows he considers five types of city buildings.

- A — Apartment and family dwellings.
- B — Schools and churches.
- C — Theaters.
- D — Workshops and factories.
- E — Basement restaurants, bakeries and workshops.

APARTMENT AND FAMILY DWELLINGS

1. The first cost of building a window is \$9.28, or \$3.50 more than the first cost of the same area of brick wall.
2. The maintenance cost of a window for a year is \$4.15.
3. Loss of wall space. More important than in any other type of building.
4. Admission of flies. Extremely important.
5. Admission of dirt. Importance depends on locality.
6. Weakening of walls and injury to building. The same as in all structures.
7. Entrance of burglars. Extremely important.

8. Increase of heat loss. Not as important as in factories, schools, etc.

9. Interference with mechanical ventilation. Does not apply.

10. Increased liability to fire. Not important.

11. Nuisance from noise. Depends on locality.

The advantages far outweigh these disadvantages.

SCHOOLS AND CHURCHES

The full use of windows is justified from the standpoint of proper lighting alone. There are many other advantages. Therefore, there is no question that schools and churches should be provided with windows in abundance.

THEATERS

Hill concludes that the use of windows in theaters is objectionable from every standpoint. To prohibit them by law is desirable; to require them would be a serious error.

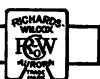
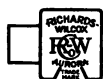
WORKSHOPS AND FACTORIES

In general workrooms with an almost continuous glass surface on at least two sides can be ventilated by the judicious use of windows if the space available for employees is approximately 1,000 cubic feet per person. While the expense of providing adequate window area is considerable and maintenance due especially to heat loss is approximately 60 per cent greater, these objections are almost nothing in proportion to the advantages derived from their use.

BASEMENT RESTAURANTS, BAKERIES AND WORKSHOPS

The great objection to basement restaurants and bakeries is the dirt which enters through the bulkhead windows. Hill thinks that restaurants and a few types of shops will never be routed out of basements. The price of land is too high to make it possible from the economical standpoint. On the other hand, bakeries and most kinds of workshops should not be allowed in basements. If restaurants, bakeries, or workshops are allowed on the first floors, in basements, or sub-basements, the law should prohibit windows that can be opened and require mechanical ventilation with air washers and temperature and humidity control.

—Chicago Tribune.



Free Want Ad Section

This space is reserved for you. Your ad may carry your address or we will key it and forward all replies promptly.

Our publications reach 28,000 hardware and implement dealers, architects, contractors and builders.

Businesses change hands and proprietors find just the man they want through these columns. Send in your ad. We will publish it in three consecutive issues without charge.

OPEN FOR POSITION or location in South or Southwest, a civil and structural engineer, architectural and mechanical draftsman. Buildings. Large experience in general construction. References. Address, J. W. Miller, 410 Martin Street, Newcastle, Pa.

POSITION WANTED — By young man of 21, as Rodman or Chainman with surveyor or surveying party. Am willing to leave town. Have worked as architectural draftsman for four years, and have had some experience in surveying. Can furnish A-1 references as regards ability and integrity. Address, "L. S., care Doorways, Aurora, Ill."

• • •

Pompous Lady — "Must I put this stamp on myself?"

Postoffice Clerk — "Well, you can if you like, but it's usual to put it on the letter."

• • •

"Aren't you the same man I gave a mince pie to?" said the Kansas housewife, sharply.

"No, ma'am, I'm not, and wot's more, the doctor says I never will be," answered the weary one.

• • •

Kid — "How did you get the red marks on your nose, Uncle?"

Uncle — "Glasses, my boy."

Kid — "Glasses of what?"

• • •

A few days after a farmer had sold a pig to a neighbor, he chanced to pass the neighbor's place and saw his little boy sitting on the edge of the pig pen, watching its new occupant.

"How d'ye do, Johnny?" said he. "How's your pig today?"

"Oh, pretty well, thank you," replied the boy. "How's all your folks?"

—Stearns Co-Operator.



The Track That Made Sliding Doors Popular

A Unit of the Famous R-W Line



Richards-Wilcox Trolley Track for Sliding Door Equipments makes friends wherever it goes and adapts itself to every condition of sliding door service—

For Barns	Warehouses
Residences	Schools
Garages	Churches

Why not furnish the best when it costs no more?

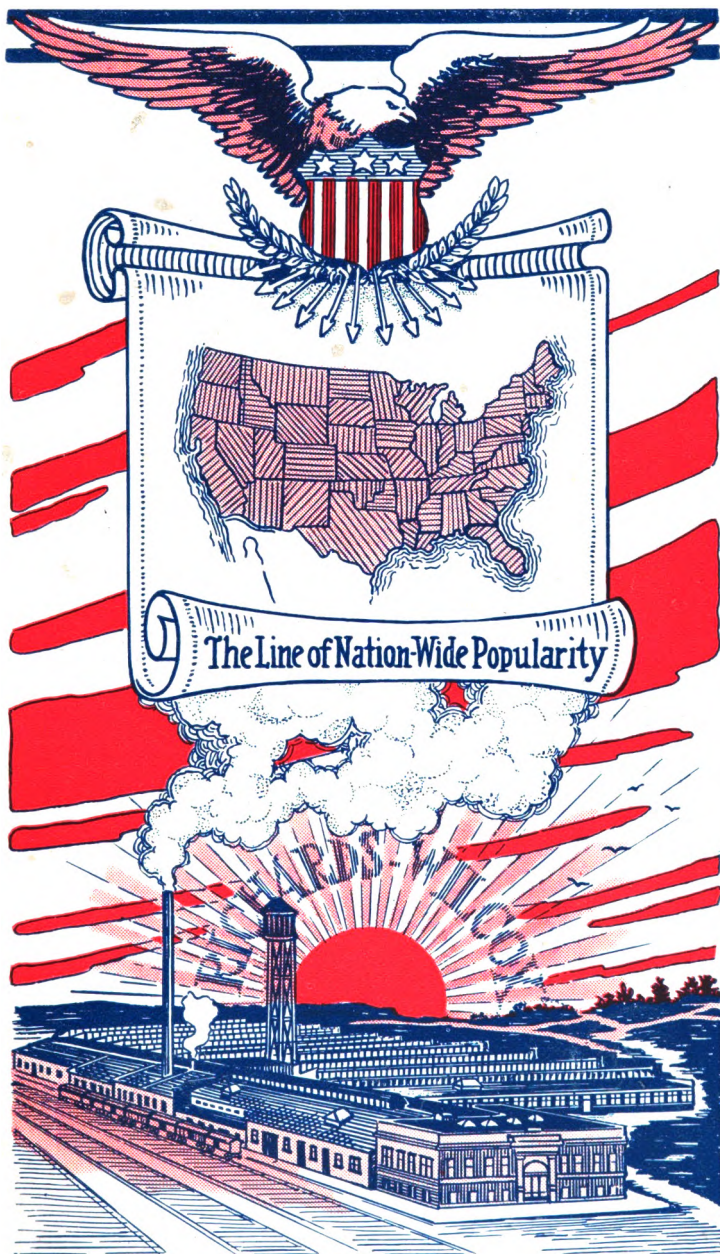
Write now for free catalog containing interesting description of R-W products, handsomely illustrated—valuable to you.

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.





JULY, 1917

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"To be prepared for
war is one of the
most effectual means
of preserving peace."



FOR JULY, 1917

Published once a month, to acquaint the Hardware Trade, the Architect and the Builder with R-W Products and Service

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

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Volume 5

FRED C. WEST, *Editor*

No. 7

Solving the Garage Door Problem

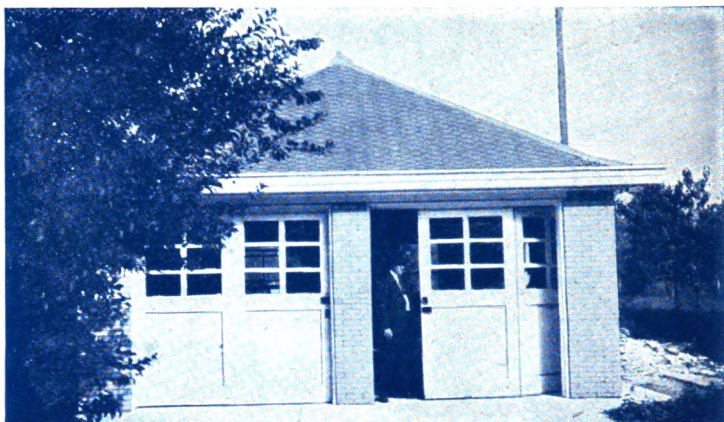
Treatise by E. J. G. Phillips, Engineer, Richards-Wilcox Mfg. Co.

Continued from June Number

R-W No. 235—Curved Track Right Angle Sliding Door Equipment

IF there are two feet or more of space between the jamb and side wall, a curved track may be used in the corner as shown in the plans, Fig. 16. There will then be one continuous run of track across the front and around to the side walls. Special knuckle-jointed hangers are required to run in this curved track. For single doors, as plan K-1, two short pendant four-wheel hangers are required. On pairs of doors as plan K-2, use a two-wheel hanger on the front end of each door and a four-wheel knuckle-jointed hanger on the back end. A stop as detailed in K-3, set on the floor, will hold the front end of a single door in place. Pairs of doors require the guide shown in K-4 in the floor at the center of the opening. To lock from the inside, a floor bolt as shown on the elevation K-1 can be used, but to lock from the outside, a sliding garage door lock should be used at the front side.

The Door of Opportunity Slides Best on R-W Hangers.



Double Entrance Garage Equipped with R-W No. 235 Curved Track Right-Angle Sliding Door Hardware

A floor guide and track extending from the back jamb around to the side wall and following this as far as the door runs, will be of considerable assistance in guiding the doors as well as in locking them securely. This guide must of course be bent to the same radius as the track and must be located

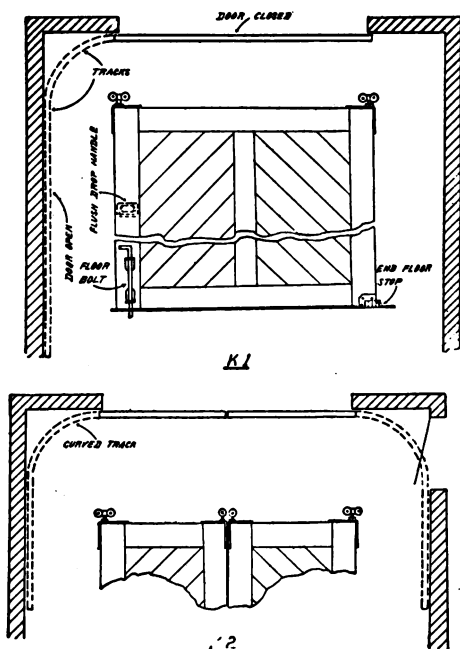


Fig. 16 and Fig. 16a—Plan Views of Garage Doors Sliding on Curved Track with Various Other Details

The difference between success and failure is after all only a matter of personality.

directly underneath it. Flush drop handles should be used on the outside of the doors and bow handles on the inside. Two doors may be hinged together as at K-3 and operated in the same manner. In this way narrower doors can be used and consequently less clearance will be required in turning the corner. A special hinge, however, with one leaf longer than the others should be used as shown in the elevation. This

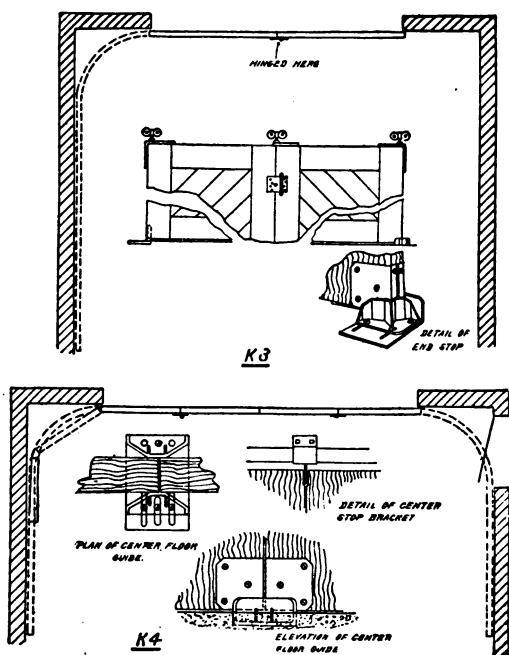


Fig. 16a

will prevent the door from interfering with the wall in making the turn. Three hangers are required. The pendant of the center hanger should be directly over the edge of the door.

This same idea may be carried still further, using four doors to each opening and sliding two each way as in K-4.

When the curved tracks are used, the doors of course will stand farther down the side wall than when straight tracks are used, it being impossible to have the doors stand up in the corner of the building. The dotted lines in the clearance curves previously referred to in connection with straight track right angle doors indicate the clearance required for the doors when using curved track.

The answer to the sliding door problem is Richards-Wilcox.



The War and Trade Conditions

By Milton D. Jones

WHEN war was declared on Germany every manufacturer, every merchant, every farmer and tradesman found himself confronted with the question: what effect will this war have upon my business? The answer to this question is necessarily problematical for no one can foretell with any degree of accuracy just what the effect of the war will be.

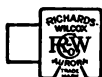
The difficulty of an intelligent analysis of the probable course of business, either immediate or future, is that handicap which has beset us since the beginning of the European war; namely, the entire lack of precedent or analogy in the past. It is peculiarly so in this instance because we shall evidently engage in the conflict on a scale which has never been approached in any previous war in our history.

This fact in the beginning means that the needs and demands of domestic business must necessarily be subordinated to those of the government. And the government requirements are going to be tremendous. America is in this war to stay and she will profit by the experience of her allies and will prepare for a long war. The surest way to lengthen the war is to prepare for it as if it were to be short. The surest way to shorten the war is to prepare for it as if it were to be long. Our government is evidently, and I think wisely, adopting the latter course.

It seems therefore likely that the government call for munitions of war and for equipment of all kinds must consequently be felt in every line which produces steel, iron, leather, copper, lead, zinc, canvass goods, clothing of certain descriptions, etc., and manufacturers of these materials will probably find their capacity in certain products almost if not entirely taken up with orders from the Federal Government. This will cause a shortage of these goods in home markets with consequent high prices.

You are probably more or less familiar with conditions in the steel market. The price of steel is at a very high level.

A self made man usually worships his creator.



Deliveries by the steel mills require from six months to a year. Many manufacturers have been unable to secure steel for all their requirements. In the case of the Company with which I am connected, we are now paying from 140 to 160 dollars per ton for certain sizes in steel sheets which two years ago we bought for \$25.00 per ton and the worst of it is there is very limited tonnage available even at the high price.

It has been reported in New York City and other metropolitan papers that there is a possibility that the government, in order to obtain steel to build a billion dollars worth of ships, will cause to be cancelled all private contracts with the steel mills and take the entire output, excepting a nominal supply for the railroads, reimbursing in some equitable manner the private manufacturers for the loss they sustain by reason of the cancellation of their contracts. This may be a possibility, but I think hardly a probability.

I do not believe prices have as yet reached the peak. The government will soon be or is already specifying for vast quantities of steel and with the mills congested with orders, there are bound to be still higher prices and slower delivery than ever. This condition applies the same to other commodities as cotton, leather, food stuffs, etc.

There is much speculation and a variety of opinions as to what all this will lead to. Some are inclined to think the extreme high prices will greatly retard business activity. For example, they say that the tremendous cost of building materials and labor will cause almost a cessation in building operations and improvements. Others are not only more hopeful in their views but positively vigorous in their opinion that prosperity will follow from this war as the day the night.

The views of Howard E. Coffin, the great engineer whom President Wilson appointed a member of the Naval Consulting Board, are interesting and timely. A word about this man Coffin:

Though widely known in his own profession, his name to the general public meant merely something that one saw now and then in motor car advertisements. Others, far more famous, were appointed to that board. But somehow, little by little, Coffin has become the dominant figure.

With untiring energy he has plunged into the work of national preparedness in a fashion that technically trained business men seldom achieve. Lawyers, soldiers, diplomats, are usually the men who see the vision; here's a mechanical engineer to whom the government, plunged into the greatest war in history, is turning frankly for advice as to matters of national policy.

What they think of him down east is indicated in this recent editorial comment of the New York Evening Sun:

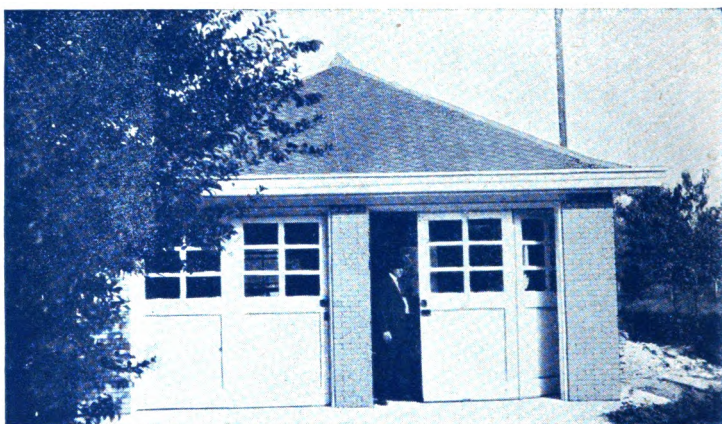
You pay for what you need whether you buy Richards-Wilcox Hardware or not.

Adaptability

A MATTER of vital importance to every architect, builder, or hardware dealer, is the adaptability of his lines of hardware to the needs of his patrons.

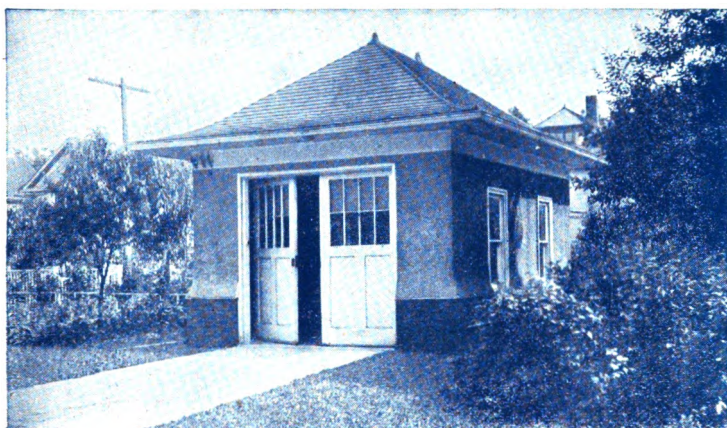
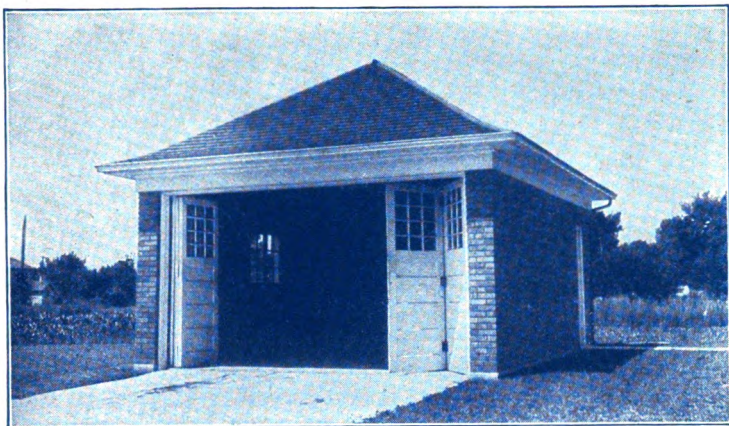
The R-W Line

of sliding door hardware includes "a hanger for any door that slides."





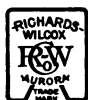
DOOR-WAYS



These garages illustrate the application of four distinct R-W garage door equipments, each adapted to the conditions governing individual garages.

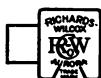
Every garage builder whom you furnish R-W Garage Door Hardware will be so pleased with results that he will call in his neighbors and friends, and demonstrate how well it works. Pleased patrons pay.

*Write for booklet "Distinctive
Garage Door Hardware."
Sent without obligation.*



Richards-Wilcox Manufacturing Co.
AURORA, ILLINOIS, U.S.A.

"A Hanger for Any Door that Slides"



Grant's Attitude Toward War

It is said that when Ulysses S. Grant visited Berlin on his famous tour of the world he was invited by the then crown prince (now the kaiser) to review the troops.

"The truth is," replied Grant, "that I am more a farmer than a soldier. I take little or no interest in military affairs. I never went into the army without regret, and I never retired without pleasure."

Does not this incident describe pretty accurately the difference between Germany and the United States in their attitude toward war?

Ten Million Subject to Draft

Ten million men in the United States are subject to the selective conscription within the ages agreed upon in the conference report on the war army bill. This number of men between the ages of 21 and 30, inclusive, represents very nearly 10 per cent of the total estimated population of between 103,000,000 and 104,000,000.

Of these conscription eligibles the bureau estimates New York state will have 1,068,000; Pennsylvania, 874,000; Illinois, 639,500; Ohio, 494,300, and Texas, 420,200.

Neighbors Like Mr. Jewett's Garage Door Hardware

Mr. Chas. W. Jewett, 764 Gilpin street, Denver, Colo., who has installed in his garage R-W Slidetite Door Hardware, writes us as follows:

"A number of my neighbors who have garages have been very much interested in my new style SLIDETITE doors and think it is the best arrangement they have seen."

For the use of those interested in garage door hardware, we have prepared an interesting book, "Distinctive Garage Door Equipment," which describes and illustrates the SLIDETITE and other styles of garage door hardware. This book will be mailed without obligation to anyone interested. Address, Richards-Wilcox Mfg. Co., Aurora, Ill.

The sweetness of low price never equals the bitterness of low quality.

A Peaceable Dog

The most peaceable dog is the dog that is there
 With the buckle and clinch when he's caught unaware,
 And who "never starts not'n" that's not on the square,
 And licks his own wounds when it's over.
 He goes on his way without picking a scrap;
 His bark is of peace, but the scars on his map
 Are nothing compared with the cuts on the chap
 That thought he could hand it to Rover.

She Had Nothing on Him — But Mud

The lady autoist apologized to the pedestrian for knocking him down, but added: "You know you must have been walking very recklessly. I am a very careful driver. I have been driving a car for five years."

"You have nothing on me," returned the victim, brushing the dirt off his clothes, "I have been walking for fifty years."
 —*Exchange*.

Stretchin'

The doctor's wife had advertised for a girl to do housework and was showing an applicant over the house. She had been very liberal in her promises of privileges and it looked as though the two were going to come to an agreement, when the girl suddenly asked:

"Do you do your own stretchin'?"

"Do we do our own what?" asked the puzzled mistress.

"Stretchin'," repeated the girl. "Do you put all the food on the table and stretch for it, or do I have to shuffle it around?"

Knew It Was True

First Gossip—Do you believe that awful story they are telling about Mrs. Perrin.

Second Gossip—Yes, what is it?—*Kansas City Journal*.

They Probably Met

He—Haven't I seen you somewhere sometime?

She—Quite likely, I was there.—*Kansas City Journal*.

Her Turn

Smith got married. The evening of his first pay-day he gave his bride fourteen dollars of the fifteen-dollar salary and kept only a dollar for himself.

But on the second pay-day Smith gave his wife one dollar and kept fourteen dollars himself.

"Why, John," she cried, in injured tones, "how on earth do you think I can manage for a whole week on a paltry dollar?"

"Darned if I know," he answered. "I had a rotten time myself last week. It's your turn now."—*Topeka State Journal*.



(Continued from Page 5)

"These words of Mr. Howard Coffin should be printed in letters of fire and put up against the sky, to be read by every citizen daily so long as the war lasts:

" 'We need prosperity in war time more than in peace.

" 'Business depressions are always bad, but doubly so when we have a fight on our hands.

" 'The declaration of war can have no real evil effect on business.

" 'We need more business, not less.

" 'There is real danger in hysteria.

" 'Indiscriminate economy will be ruinous.'

"There is the challenge of absolute sanity to every one in the country from the president to the humblest toiler. The object of every one should be not merely to wage a successful war against Germany but to wage it in such a manner that no harm shall come to our own country. The true method of accomplishing this is to carry on the operations of the war with the minimum of disturbance to our domestic affairs."

The mention of what Mr. Coffin terms "indiscriminate economy" is, I think, very opportune. People are more or less panic-stricken about the high prices, particularly of food stuffs, and are buying far beyond their normal requirements in the fear that prices will be still much higher. For example, some families are buying flour by the barrel where formerly they bought by the sack. This, what might be termed "hysterical buying," creates an abnormal demand and defeats the very purpose which it seeks to accomplish by causing prices to advance rather than recede.

It is well to counsel moderation and saneness in buying, even in the matter of household requirements. Certainly now, if ever, is the time for the individual as well as the nation to maintain his equilibrium and conduct his affairs in a normal and common sense manner.

Despite the elements of uncertainty which necessarily exist, I am inclined to the opinion that people who are timid and pessimistic over the entrance of the United States into the world war on the ground that it will make business dull and times hard, surely are far from farsighted. They cannot even profit by a glance near home at Canada. Our neighbor on the North was never so prosperous, in all material ways, as she is now in actual war. The business of our own Company in Canada has more than trebled the past two years. And this big nation of ours ought confidently to look forward to fareing

Steel mixed with brains makes Richards-Wilcox Sliding Door Hardware.



much better than Canada, for Canada is shedding her best blood at the front and our sacrifice in that respect is apt to be in much smaller proportion.

A great many of our fellow citizens are of the opinion that this "paper war" is not designed to do anything worse than economic harm to Germany by financing and provisioning her enemies. Its real purpose they suspect, is practical preparedness for any international possibilities following the end of the present war, and the raising of a large army in a sleeping giant of a country like ours can only be accomplished through a real "war scare". Be that as it may, it is certain that Uncle Sam is a busy man, raising an army and appropriating billions to put this great republic in a state of defense.

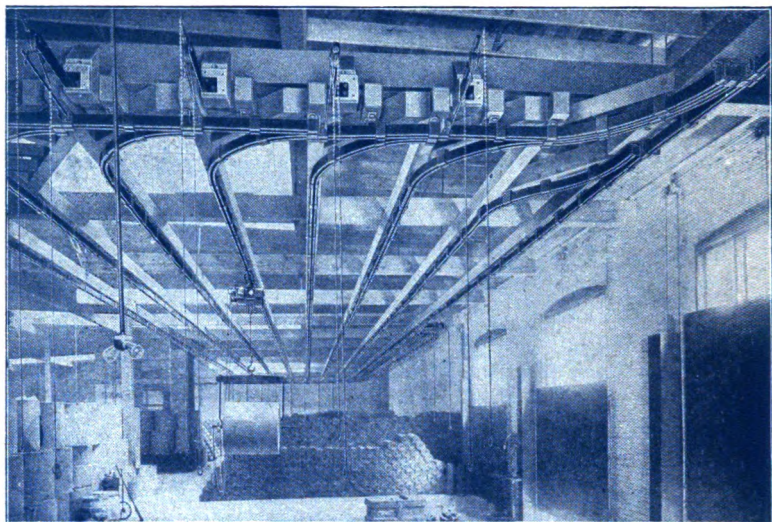
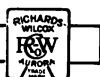
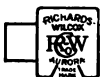
These billions will get into speedy and general circulation, in themselves alone increasing the per capita wonderfully and making times good. But the government billions will be only a drop in the bucket compared with the deluge of wealth that will flood the country as the inevitable result of keenly stimulated national industries, commerce and business—everybody and everything keyed to high pitch in a productive way.

Particularly will this apply to agriculture, and when the farmer sells all he can produce at a high price, and home consumption of his product has an increased earning capacity to pay the price, with a foreign demand that gives him a practical food monopoly of the world's supply, there is bound to be unprecedented national prosperity. This is not a case of the wish being father to the thought, but based on sound principles of political economy.

In the war upon which our country has entered and in which our highest well-being is involved, the forces of prosperity will be the forces for victory. All our industries must be kept roaring at top speed in order that the supplies essential to our own army and to the Allies with whom we are joined may be forthcoming. All currents of business must be kept flowing at full tide in order that the war bonds may be easily absorbed and the war tax levies easily met.

As a matter of patriotism no less than of self interest every American man and woman should do his and her utmost to keep business moving steadily at the present juncture and to keep all processes of our common daily life vigorous and sound. I believe that this is the spirit and purpose of our country as a whole. I believe that our people face the future with confidence and with a loyal resolution to strengthen the country's cause by producing abundant harvests of food and by keeping the sinews of business sound. Inspired by that spirit and directed by that purpose our common country will attain the prosperity which staunch and thoughtful patriotism deserves.

Some hang their doors on iron hinges because they are better than leather. Others hang their doors on Richards-Wilcox sliding door hangers because they are better than hinges.



One Man Can Carry 8000 Pounds

THE average man can convey on a wheelbarrow or shop truck 200 to 500 pounds. The same man can handle up to 8,000 pounds with less effort by using

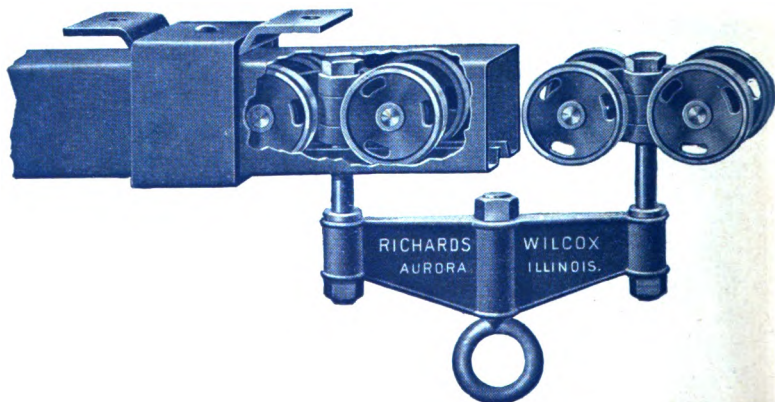
Richards-Wilcox Overhead Carriers

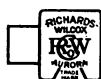
On this basis one man and an R-W Overhead Carrying System can do the work of sixteen men with trucks.

A prominent automobile manufacturer reports that he saves \$3.20 on the handling of each automobile his factory makes, by having changed from the old system to R-W Overhead Carriers.

Our Engineering Department designs special or 'adapts standard appliances to suit requirements for economical handling of materials and products in individual plants.

Write for Catalog, "Overhead Carrying Equipment." Sent Without Obligation.





Free Want Ad Section

This space is reserved for you. Your ad may carry your address or we will key it and forward all replies promptly.

Our publications reach 28,000 hardware and implement dealers, architects, contractors and builders.

Businesses change hands and proprietors find just the man they want through these columns. Send in your ad. We will publish it in three consecutive issues without charge.

POSITION WANTED — As architectural draftsman. Have had no experience in an architect's office, but have done work in my own office, aside from this have been a practical builder for seventeen years. Can furnish any amount of reference desired. Am willing to start with small salary. Reason for change, business dull in this section, wish to locate in a larger field for business. Address, R. R. Hamilton, So. Boston, Va.

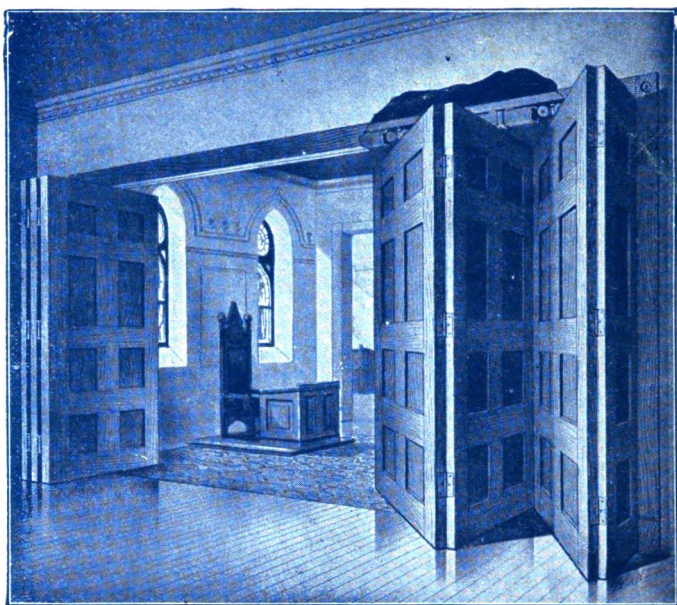
FOR SALE — 320 acres of land one mile from good Montana town. Fine place for cows and poultry. Address, H. L., care Doorways.

Old Si Sighs, "Don't You Advertise!"

"Folks say it pays to advertise," said old man Bangs to me. "Folks says the merchants that is wise, prints prices folks can see." But Silas Sanders, poor jay, says, "No, not on your life!" for advertising was the way old Silas got his wife.

He sent an "ad," all wrote up slick, to some dern magazine that says an "ad" will do the trick and fetch a man a queen. Wal, Silas never knew a lot; he went and wrote a letter. You oter see the queen he got—"The queen got him," is better!

She seen the "ad" and came to Si as fast as steam could bring 'er; and bye and bye she ran the ranch, gol ding 'er! So if you don't want no black eyes or no disturbance near you, don't say it pays to advertise where poor old Si can hear you!—*William F. Kirk in Cleveland News.*



Richards-Wilcox Accordion Door Hangers

FOR

sliding partitions in schools, churches, clubs
and other public buildings.

Make Big Rooms Out of Small Rooms

REFLECT CREDIT on the architect or
contractor who recommends them and
become a potent advertising force for him
through the years.

MADE TO LAST a life time and give
satisfactory service as long as the building
stands.

Write for booklet "Sliding Door Hardware for Parallel, Accordion, and Flush Door Partitions." Sent without obligation.



Richards-Wilcox Manufacturing Co.
AURORA, ILLINOIS, U.S.A.



Aug 1917



August 1917



True American Sentiment

Wise men who rule our government
All say that we must fight;
We've chosen them to represent,
And know that they are right.
So to the glorious Stars and Stripes
Be loyal to the man,
And make the world take off its hat
To striding Uncle Sam.

Of subtle intrigue's base designs
Wise statesmen did not dare
To let us hear, for well they knew
'Twould raise our fighting hair,
And make us gnash our loyal teeth
With patriotic might,
While Uncle Sam, in mercy, strove
To spare us from the fight.

We know the cry was long and loud
In favor of world peace.
In commerce we were prosperous—
We won the golden fleece.
But, of digging and of delving,
We've had enough of that
When Uncle Sam beseeches us
To line up and stand pat.

For Freeland sound a loud Hurrah!
For Human Rights a Cheer!
A realm where man lives at his best—
That's why you find us here.
Our emblem, the old Stars and Stripes,
To the war-wind let us fling;
For America and Freedom's Cause
We make the welkin ring.

BY PUT.





FOR AUGUST, 1917

Published once a month, to acquaint the Hardware Trade, the Architect and the Builder with R-W Products and Service

Branches

85 Walker Street	New York City	1735 Boatmans Bank Bldg.	St. Louis, Mo.
15 East Lake Street	Chicago	321 Plymouth Bldg.	Minneapolis, Minn.
507 Arch Street	Philadelphia	503 Equitable Bldg.	Los Angeles, Cal.
132 Pearl Street	Boston	324 Underwood Bldg.	San Francisco, Cal.
Richards-Wilcox Canadian Co., Ltd.		London, Ont.	

Volume 5

FRED C. WEST, *Editor*

No. 8

Solving the Garage Door Problem

By E. J. G. PHILLIPS

Chief Engineer, Richards-Wilcox Mfg. Co.

Continued from July Number

R-W No. 635 — Garage Receding Sliding Door Equipment

AN improved method requiring very little front wall space adjoining the opening, is illustrated in the several sketches of the receding garage doors. The minimum distance between the back edge of the door and the side wall is $4\frac{1}{2}$ inches, as against 24 inches when using curved tracks. To accomplish this, a special curved corner piece is used, as shown in Fig. 17. This serves as a curved track for the corner and also as a bracket to support the ends of the two tracks which extend from the ends of the bracket at 90 degree angles to each other. A recessed portion at each end of the bracket just fits the track, and between the ends of the two tracks the bracket itself becomes the track runway. Specially constructed hangers are required to make this short turn, but if the doors are correctly hung, no difficulty will be experienced.

The detail Fig. 18 shows the hangers applied to single doors and doors in pairs. Notice that doors in pairs require a different hanger at the center where the two doors meet. These hangers

A garage owner is known by the equipment which operates his doors.

are constructed to set the wheels back over the door farther without changing the distance between the edge of the door and hanger pendants.

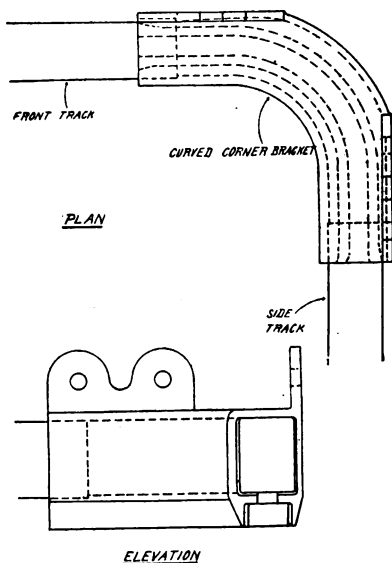
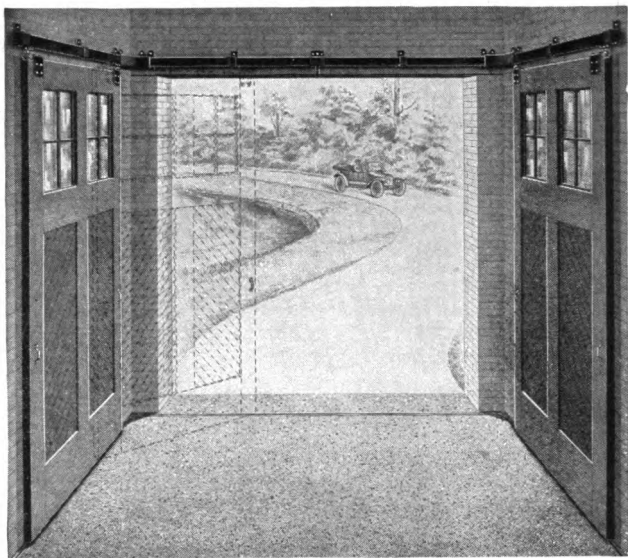


Fig. 17 — Plan and Elevation Showing Use of Curved Corner Bracket

Doors make the garage — hangers make the doors — Richards-
Wilcox makes the hangers.

An interior elevation of a pair of doors equipped with a complete set of hardware is given in Fig. 19. Always use two handles on each door for moving these doors around the corner. A center stop bracket over the center of the opening stops the doors in the right place and prevents them from being moved to either side after having been locked together.

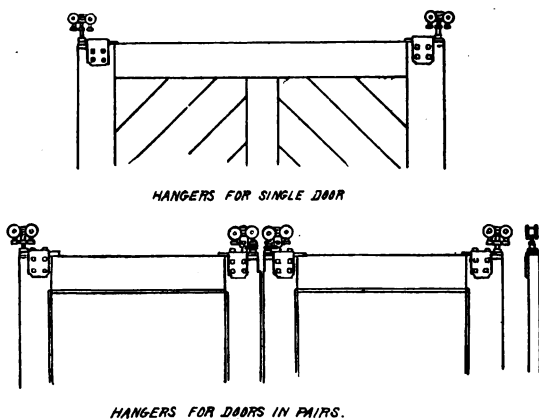


Fig. 18 — Details Showing Hangers Applied to Single Doors also Doors in Pairs

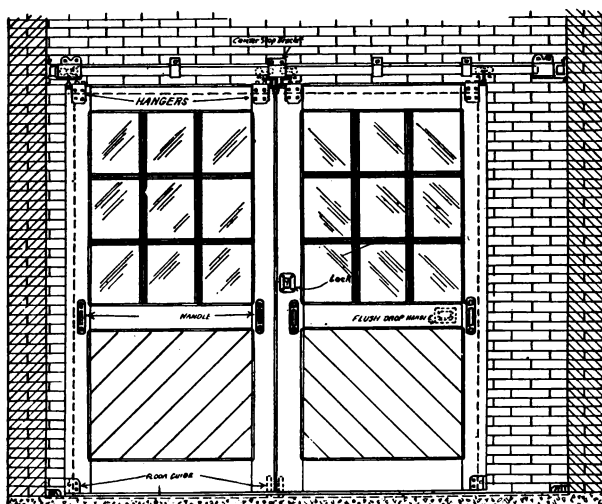


Fig. 19 — Inside Elevation of Double Doors Equipped with a Complete Set of Hardware

It is said that a nail will hold better when hit several times lightly than if it is driven home by one hard blow.

The floor guides detailed in Fig. 20 are mortised into the bottom of the door directly under each hanger. These slide in a channel-shaped track which is set into the concrete floor, as shown in the lower detail, or it may be set on top of the floor

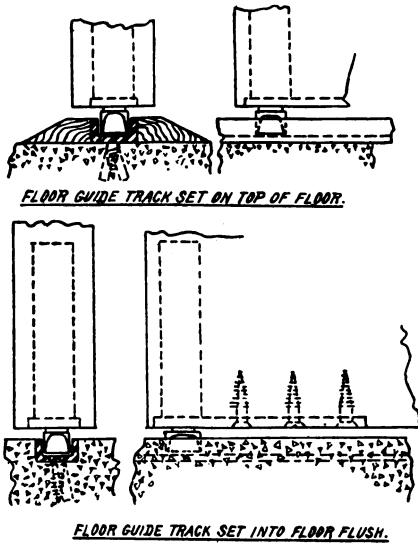


Fig. 20 — Various Details of Floor Guides which are Mortised into the Bottom of the Door Directly Under Each Hanger

with beveled strips of wood on each side as in the upper detail, Fig. 20. In this case, the floor guide will form a raised threshold, which may in some cases be considered desirable to prevent rain from beating in under the doors. The floor guide track must, of course, follow the same plan as the door hanger track, and must be directly in line with it. The curved corner corresponds with the curved track brackets in Fig. 21, plan L-5.

The table presented below shows the clearance above the doors required for track and hangers.

Track No.	Size of Track	Weight of Door	Headroom Above Top of Door (Not Opening)	
			Doors in Pairs	Single Doors
31	Small	250 lbs.	7" to 7 $\frac{3}{4}$ "	6 $\frac{1}{2}$ " to 7 $\frac{3}{4}$ "
232	Medium	500 lbs.	8 $\frac{1}{4}$ " to 9 $\frac{7}{8}$ "	7 $\frac{3}{4}$ " to 9 $\frac{7}{8}$ "
33	Large	800 lbs.	8 $\frac{3}{8}$ " to 10 $\frac{1}{4}$ "	8 $\frac{3}{8}$ " to 10 $\frac{1}{4}$ "

Have you ever noticed that R-W hardware is always found at the largest store? That's the reason it is the largest store.

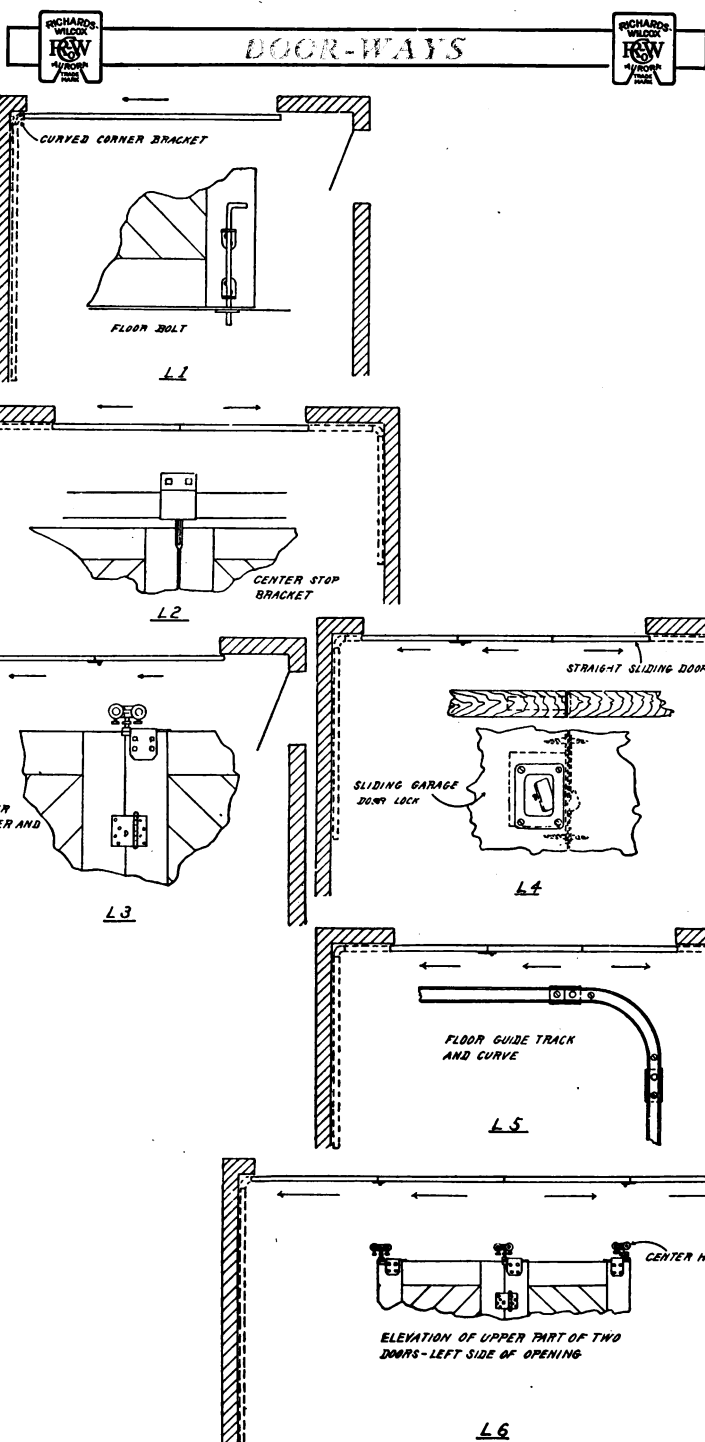


Fig. 21 — Various Plans which Can be Used for Receding Garage Doors; also some Details of Construction

(Continued on Page 8)

Beware watched stock — it may spring a leak.



One Hardware Company's Solution of
the Display Problem

*Dust-Proof Hardware Display Racks Installed by
Logan-Gregg Hardware Co.*

A NUMBER of years ago, Mr. Robert M. Repp, General Manager of the Logan-Gregg Hardware Company of Pittsburgh, conceived the idea of mounting hardware samples on movable display racks, believing that it would be not only more convenient for both salesmen and prospective purchaser, but would keep the samples in cases which are practically dust proof.



The Logan-Gregg Company tried the idea out and it proved to be a great success. A few years ago the store of this Company was burned to the ground and when they rebuilt they installed a similar outfit for their hardware samples.

They are quite enthusiastic about it, as is well evidenced from the fact that they practically duplicated the outfit used in their old store.

Their Display Racks operate on R-W Trolley Tracks and ball bearing hangers manufactured by the Richards-Wilcox Manufacturing Company, Aurora, Ill.

(Continued from Page 5)

The column headed "Single Doors" also applies to two doors hinged together and sliding in the same direction.

A number of different plans which can be used with this hardware are shown in Fig. 21. The first, L-1, is a single door and the second, L-2, is a pair of doors, one sliding toward the right and the other to the left. Plan L-3 is a pair of doors hinged together and both doors sliding toward the same side of the garage. Three hangers are required, as shown in the elevation L-6. The center hanger should be set forward far enough so the center of the hanger pendant will be over the door joint. A special surface hinge detailed in L-3, one leaf of

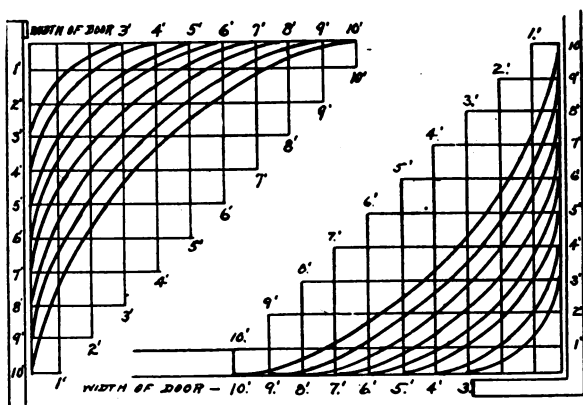
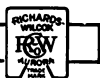
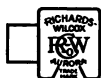


Fig. 22 — Diagram Showing Clearance Curves
Using No. 635 Hangers

which is longer than the other, is necessary to provide proper clearance between the doors and wall when turning the corner. The eye of the hinge is located some distance from the joint between the doors. Only two floor guides are used. If the doors are wide, it is preferable not to hinge them together, but to run each door independently. Two hangers will then be required for each door. Plan L-4 is a combination of an ordinary straight sliding door and a pair of doors hinged together sliding to the opposite side. Two doors hinged together sliding toward one side and one door sliding to the opposite side are



shown in plan L-5. In the two last mentioned plans the single door is used as an entrance door. It is then unnecessary to disturb the large opening, when passing in or out of the garage. Two pairs of doors are shown in plan L-6, one pair sliding each way. This opening is similar to plan L-2, excepting that the door would be quite large if only two were used, therefore to save space in turning the corner two smaller doors are hinged and operated together instead of one large door. The elevation shows the location and number of hangers required.

The clearance curves in Fig. 22 give the amount of space in the garage which the doors require in turning. Notice that the space is always the same from the corner of the building, not from the edge of the opening for a given size door.

This type of door is very simple to lock. If a single door is to be locked from the outside, use a sliding garage door lock in the front stile of the door, but if it is only necessary to lock from the inside, the heavy floor bolt is effective and simple. These are detailed on plans L-4 and L-1 respectively. The same applies to doors hinged together in pairs sliding to one side. Pairs of doors, one right and one left, are locked together at the center and a center-stop track bracket detailed in plan L-2 is used to locate them positively in place.

The H. C. of L.

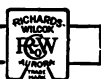
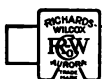
To market, to market, to buy a fat hen,
Beat it home, beat it home; never again!
—*Macon Telegraph.*

To market, to market, to buy some bread,
Had only a dollar—the baker dropped dead.
—*Tampa Tribune.*

To market, to market, to buy gasoline —
I brought home a pint, but I left my machine.
—*Judge.*

To market, to market, to buy me some spuds —
I mortgaged my flivver and wifey's spring duds!
—*Associated Advertising.*

To market, to market, to buy wife a hat,
Home again, home again, pocketbook flat!



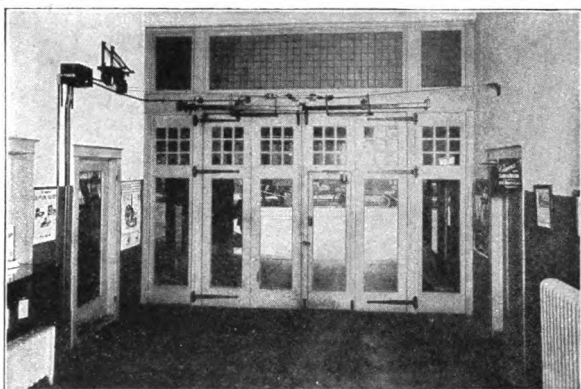
Public Garage Service
and Richards-Wilcox Sliding Door
Equipment

"THE RICHARDS-WILCOX MFG. Co.,
"AURORA, ILLINOIS.

"June 4, 1917.

"Gentlemen:

"It gives us great pleasure to state that we believe our Electric Door Openers installed by you to be one of our greatest assets in the way of Service promotion.



Interior view of Berthold Garage entrance showing R-W Stewart electric door opener and closer, R-W Slidetite hanger equipment and R-W wicker door hardware with R-W No. 643 door check.

"Operating them as we can, from five different points, entry to our building is almost instantaneous and our customers never have to wait to get in. This is a tremendous advantage to us also, for it enables us to handle customers more rapidly.

"As an advertising feature we consider the doors good, for a transient customer gets a good first impression of up-to-dateness and efficiency when the doors are opened immediately and he begins to turn his car towards our driveway. As our boys have been trained to keep a constant watch, this 'no-wait' is always in evidence.

"In the winter, there is less heat wasted from our building, because of the quick action that can be obtained in closing the doors.

"We honestly feel that a building such as we have here, would not be complete without the R-W Stewart Electrically Operated Doors.

"Yours very truly,

"A. C. BERTHOLD COMPANY.

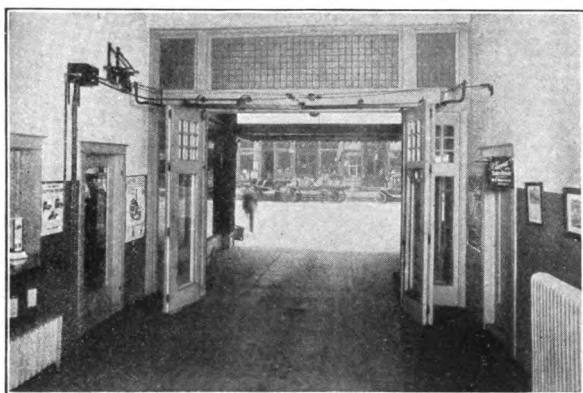
"AWS/F

"A. W. Spiers."

Don't be afraid to show the higher priced goods. If you don't say, "One hundred dollars" without an overture, you are

The Berthold Garage at Downer Place and Lake Street, Aurora, is one of the most modern equipped garage buildings in Northern Illinois. It is conveniently located on the Lincoln Highway, the Starved Rock trail and the Cannon Ball trail. The building is an imposing vitrified brick structure three stories high, is as near fireproof as can be devised and is admirably suited to garage service needs.

The upper floors are divided by a fire wall with automatically closing fire doors. A large elevator gives quick access to



Interior view of Berthold Garage entrance, showing doors in open position

each of the upper floors which are devoted to Repair Work, Paint Shop and Trim Shop.

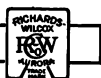
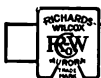
The Downer Place entrance of the garage is equipped with R-W Slidetite four-door hardware operated by R-W Stewart Electric Door Opener and Closer. The Lake Street entrance is quipped with R-W two-speed double sliding four-door hardware, also operated by R-W Stewart Electric Dbor Opener and Closer. The doors of both entrances have wicker entrance doors closed by Richards-Wilcox air pressure door checks.

The illustrations give a good conception of the advantages to be had through the use of Slidetite hardware and the R-W Stewart Door Opener and Closer. By simply touching a button at any point in the garage, these doors may be instantly opened or closed as indicated in the letter printed above.

The R-W Stewart Electric Door Opener and Closer and R-W Garage Sliding Door Equipments are acknowledged everywhere to give the highest degree of service and satisfaction.



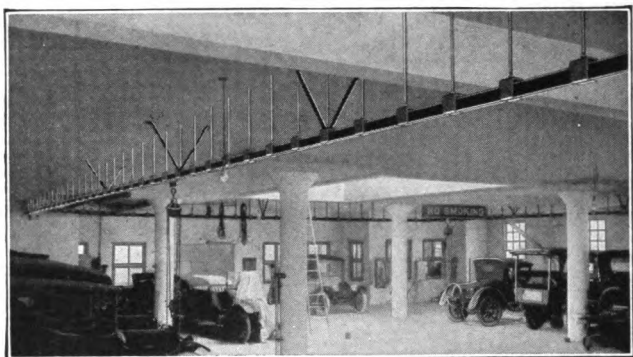
The principal thing a thief takes is chances.



Cutting the Cost of Carrying

MR. Bert D. Keck, Architect, with offices at Grand Forks, N. D., and Crookston, Minn., reports that the Simms Auto Company at Grand Forks, N. D., praise highly their Richards-Wilcox Overhead Carrying System.

The Simms garage is said to be the largest and best furnished in North Dakota. It is exceptionally well equipped, having in addition to a complete R-W Overhead Carrying System, two sets of R-W Slidetite Garage Door Fixtures operated by R-W Stewart Electric Door Opener and Closers.



Simms Auto Company well pleased with R-W Overhead Carrying System for handling heavy units.

Their R-W Overhead Carrying System, shown above, facilitates the handling of heavy parts and repairing of cars. With this system they lift automobiles and trucks to a position practically on end, which gives repair men easy access to parts under the car and does away with the necessity of the workman's lying on his back in an uncomfortable position, with tools out of reach.

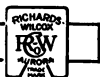
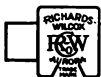
Engines, differentials, transmissions and other heavy units are readily lifted and transported to the work bench by one man using the R-W Overhead Carrier, saving time, expense and damage claims. The Simms Company would not be without this modern convenience.

The Richards-Wilcox Company manufacture an Overhead Carrying System appropriate to large or small requirements and furnish engineering service for plans covering installations of either standard or special equipments.

LIKE R-W TROLLEY TRACK

The Springdale Hardware Co., Springdale, Arkansas, have the following to say of Richards-Wilcox Trolley Track:

"We like it better than any track we have ever sold.
We don't sell any other."



Free Want Ad Section

This space is reserved for you. Your ad may carry your address or we will key it and forward all replies promptly.

Our publications reach 28,000 hardware and implement dealers, architects, contractors and builders.

Businesses change hands and proprietors find just the man they want through these columns. Send in your ad. We will publish it in three consecutive issues without charge.

POSITION WANTED — As architectural draftsman. Have had no experience in an architect's office, but have done work in my own office, aside from this have been a practical builder for seventeen years. Can furnish any amount of reference desired. Am willing to start with small salary. Reason for change, business dull in this section, wish to locate in a larger field for business. Address, R. R. Hamilton, So. Boston, Va.

FOR SALE — 320 acres of land one mile from good Montana town. Fine place for cows and poultry. Address, H. L., care Doorways.



Another Enthusiast — The Delko Garage

Under date of May 7, 1917, The Delko Garage Co., Delmar & Goodfellow Aves., St. Louis, Mo., wrote us as follows:

"Gentlemen:

"We have been using your R-W Stewart Electric Door Opener for nearly two years.

"We garage about one hundred cars, which requires us to operate our large doors many times during the day and night; therefore have put it to a rigid test.

"We take pleasure in recommending your door opener as being thoroughly dependable, and state it has been a great help to us in the general operation of our business.

"Yours very truly,

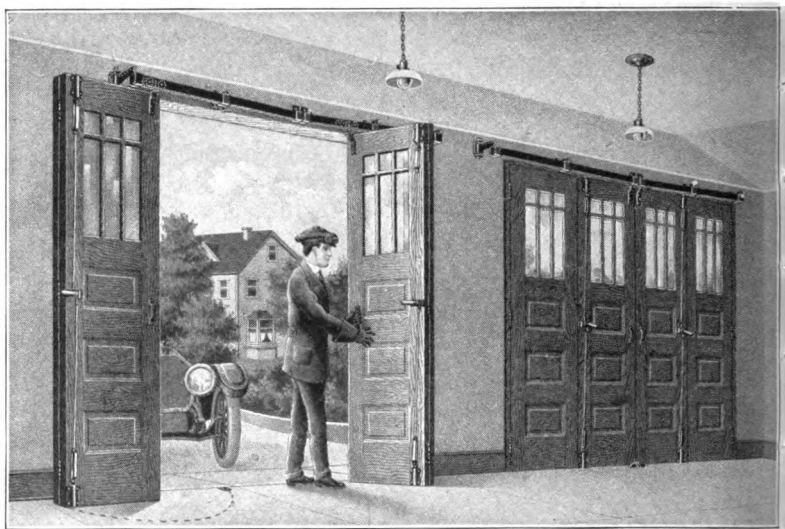
"THE DELKO GARAGE CO.

"C. K. Huthsing, Sec'y."

Slidetite

(R-W No. 435 — Patented)

Garage Door Hardware



A Thing of Beauty
And a Joy Forever



Doors can't sag nor slam.
Slide inside out of the way.
Operate in small space. Close
tight into door-frame. Give
distinction to garage.

Sold by the Best Hardware Trade Everywhere

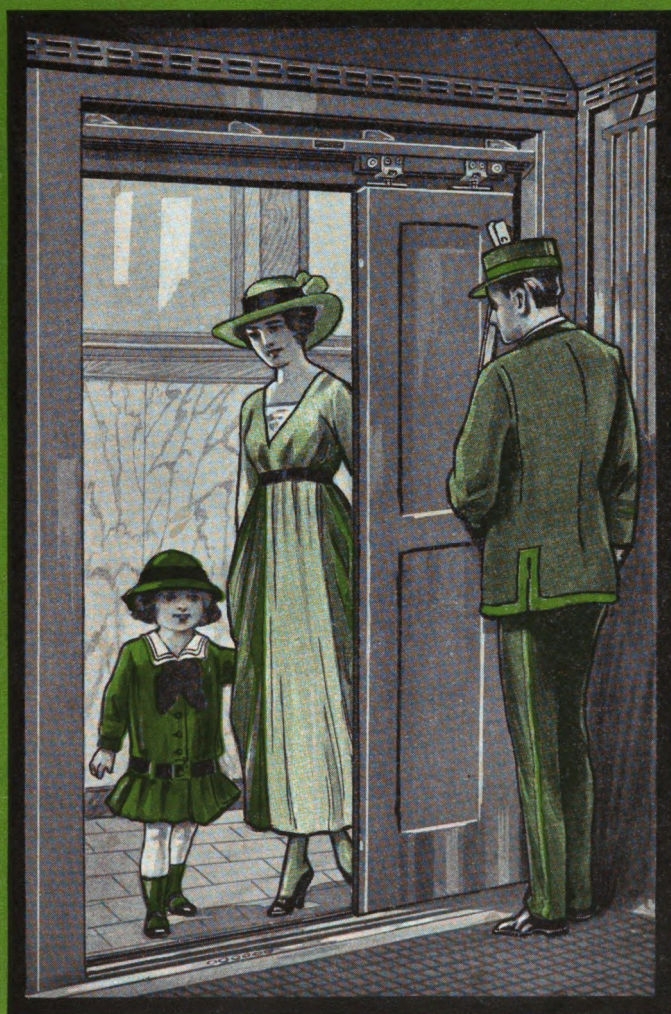
Write for booklet, "Distinctive Garage
Door Equipment." Sent without obligation.

Richards-Wilcox Manufacturing Co.

AURORA, ILLINOIS, U.S.A.

"A Hanger for Any Door that Slides"

A



September 1917

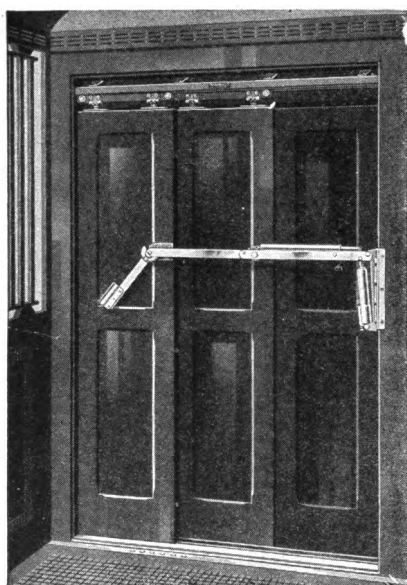
Ideal Elevator Door Hardware

Swift — Silent — Safe

A substantial and effective utility for office buildings, hotels, hospitals, apartment buildings and other edifices where elevators are used.

Ideal Ball Bearing Elevator Door Hangers

Run easily and noiselessly. Protected from dust and dirt. Adapted to single doors, two-speed, three-speed or combination elevator doors, doors in pairs. Discriminating architects recommend them.



Ideal No. 743 Elevator Door Closer

Prevents accidents by instantly closing the doors. Operates silently. Removes responsibility from elevator conductor.

If you are interested in elevator doors, do not fail to write for specific information and prices on the R-W Ideal line of Elevator Door Hardware.

A Unit of the Famous R-W Line

Richards-Wilcox Manufacturing Co

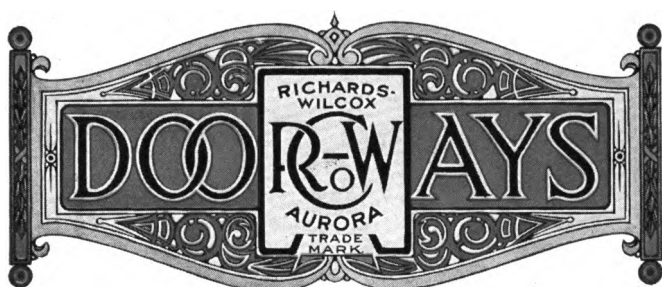
SAN FRANCISCO
LOS ANGELES
NEW YORK
CHICAGO

AURORA, ILLINOIS, U.S.A.

Richards-Wilcox Canadian Co., Ltd., London, Ont.

"A hanger for any door that slides"

PHILADELPHIA
MINNEAPOLIS
BOSTON
ST. LOUIS



FOR SEPTEMBER, 1917

Published once a month, to acquaint the Hardware Trade, the Architect and the Builder with R-W Products and Service

Branches

85 Walker Street New York City	1735 Boatmans Bank Bldg. St. Louis, Mo.
15 East Lake Street Chicago	321 Plymouth Bldg. Minneapolis, Minn.
507 Arch Street Philadelphia	503 Equitable Bldg. Los Angeles, Cal.
132 Pearl Street Boston	324 Underwood Bldg. San Francisco, Cal.
Richards-Wilcox Canadian Co., Ltd.	London, Ont.

Volume 5

FRED C. WEST, *Editor*

No. 9

Their "Ideal"

EVER since Ideal Elevator Door Hardware was put on the market, owners of big buildings, contractors, architects, hardware men and our own salesmen have written us an ever increasing volume of letters. These letters state that the authors know Ideal Elevator Door Hardware. They present glowing word pictures of the high qualities embodied in the Ideal line.

They speak of perfect construction, smooth running, protection from dust, adaptability of Ideal Elevator Door Hangers to all requirements. They emphasize the absence of slamming doors, prevention of accidents and other advantages effected through the use of Ideal No. 743 Automatic Closer.

Some have not had the good fortune to become acquainted with the Ideal line. For the benefit of all such we devote this number of Door-Ways to Ideal Elevator Door Hardware. Those who already know the Line will find in the following pages interesting confirmation of their experience.

Full information and illustrated folder will be furnished without obligation, to those who request further details from the Richards-Wilcox Company, Aurora, Illinois.

All some people care for is appearance. They are all front door; open the door, and you are in the back yard.

Why I Believe in "IDEAL" Elevator Door Hangers

By Burt Daugherty

DURING the last twenty-five years marked improvements have been made in the construction of elevator door hangers. The old single wheel, friction bearing hanger then in use has been abandoned and has given place to more practical types.

Neither architect nor hardware dealer was to be criticized on account of this type of hanger being in use as it was the best the market provided at that time.

Conditions today, however, are entirely different. A number of types of very satisfactory Elevator Door Hangers are now being manufactured.

An ideal elevator door hanger must embody the following features:—ease of operation, silence in operation, ease of adjustment, simplicity of erection and the minimum cost of maintenance.

A number of manufacturers have striven for years to produce a hanger covering these points—with more or less success. In fact much credit is due the manufacturers' engineers for the improvements made along these lines within the last ten years.

The demand today for elevator door hangers is much greater than is realized by many hardware dealers. Office buildings, hotels, department stores, apartment houses, etc., etc., are being built by the thousand in these United States and, thanks to the laws of gravitation, arched openings to elevator shafts are not permissible.

It is up to the manufacturer and the hardware dealer to post the architect and engineer as to the ideal outfit for these doors, at all times bearing in mind the specifications above noted.

After years of experimental work backed by nearly forty years of experience in the manufacture of door hangers, the engineers of the Richards-Wilcox Mfg. Co., submitted to the trade, a few years ago what we are pleased to call our "Ideal" line of elevator door hangers. While we manufacture a varied line of elevator door hangers we consider this particular line the acme of perfection. It fills the specification for an ideal hanger, in support of which statement we have abundant proof. Leading architects and engineers from coast to coast are approving this hanger for use.

This type of hanger is made for use in connection with single doors, two speed doors, three speed doors, combination swing and slide doors, and doors in pairs.

Referring again to the question of ease of operation it would be well at this point to say that the momentum gained by the average elevator door in traveling anywhere from twenty-four to thirty-six inches is such, especially when hung on ball bearing hangers, that under ordinary conditions the impact at the jamb is sufficient to cause much disturbance. To overcome this objectionable noise we submit for use our No. 743 "Ideal" Door Closer and Check. This device automatically closes and locks the door noiselessly, relieving the operator of the duty of closing the door, and insures against the possibility of a door being left open after the car leaves the floor.

Elevator doors properly equipped with "Ideal" Elevator Door Hangers and No. 743 "Ideal" Door Closer and Check are perfect in operation and a joy to all concerned. That's why I believe in them and dedicate my time and energy toward showing to hardware dealers, builders and architects from Missouri or any other community who "want to know," that "Ideal" Elevator door hardware is just what it's name implies—IDEAL.



Timidity gets people into greater danger than it avoids.



DOOR-WAYS



HOTEL BRETTON HALL BROADWAY AND EIGHTY-SIXTH STREET NEW YORK, N. Y.

"Richards-Wilcox Mfg. Co.,
"85 Walker Street,
"New York, N. Y.

"Gentlemen:

"We feel you will be pleased to know that the 'IDEAL' Elevator Door Hangers and 'IDEAL' Door Closers which you installed for us are giving perfect satisfaction. Hangers work easily and quietly, and we are particularly pleased with the Closers.

"Our doors are always closed and the disagreeable noise which we formerly had to contend with on every floor when doors were being closed, is entirely removed.

"We would not be without them for many times their cost and it does seem to us that they are an actual requirement in every first-class Hotel.

"Yours very truly,

"ANDERSON & PRICE.

"(Signed) C. E. Fuller,
"Treas. & Mgr."



Hotel Bretton Hall is situated in the heart of New York's finest residential section, yet a few minutes from the center of the shopping and theatre district. Its elevator doors are equipped with

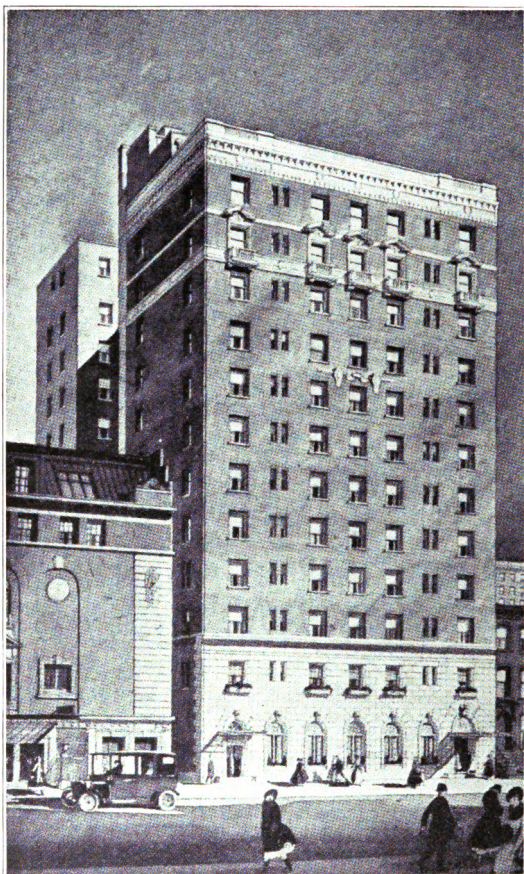
33 Sets of No. 727 "Ideal" Door Hangers.

33 Sets of No. 743 "Ideal" Door Closers.

One way to avoid the income tax is to earn less than \$1,000.00 a year.

..3..

HOTEL BRISTOL
122 WEST FORTY-NINTH STREET
NEW YORK, N. Y.



Architects, EWING & CHAPPEL

Elevators equipped with:

- 42 Sets "Ideal" Elevator Door Hangers.
- 42 Sets "Ideal" Elevator Door Closers.

"Richards-Wilcox Mfg. Co.,
"85 Walker Street,
"New York, N. Y.

"Gentlemen:

"The 'IDEAL' Hangers and Closers installed in our Building, as specified by the Architects, Ewing & Chappel, are very satisfactory and we feel very pleased with the operation of same.

"Very truly yours,

"HOTEL BRISTOL COMPANY."

Mirth is God's medicine. Everybody ought to bathe in it.—
Oliver Wendell Holmes.

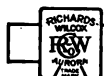
Bing & Bing Buildings

This page and the two following illustrate three buildings erected by the Bing & Bing Construction Company of New York City. The elevator doors in these buildings operate on "IDEAL" Elevator Door Hardware.



995 PARK AVE., NEW YORK,
ARCHITECT, EMORY ROTH.

You must run some folks down to make them pay up.



DOOR-WAYS



1155 PARK AVE., NEW YORK,
ARCHITECT, EMORY ROTH.

"Richards-Wilcox Mfg. Co.,
"85 Walker Street,
"New York City.

"Gentlemen:

"With reference to your inquiry regarding 'IDEAL' Hangers which we have purchased from you in the past for our various apartment house operations, wish to advise that these hangers have been installed in the passenger and service elevator doors and have always found same very satisfactory.

"Yours very truly,

"BING & BING CONSTRUCTION CO., INC.,
"(Per) M. Samuels."

Many are called, but more are bluffed.

Another Bing & Bing edifice at 933 Park Avenue, New York. Elevator Doors equipped with Ideal Elevator Door Hardware.



933 PARK AVE.; ARCH., EMORY ROTH.

100-211000-1

"The way to learn worth-while things is by absorption through association with men who do things."



U. T. HUNGERFORD BRASS & COPPER CO. BUILDING,
87-95 WHITE ST., NEW YORK, N. Y.,
WM. E. AUSTIN, ARCHITECT.

We judge ourselves by what we feel capable of doing, while others judge us by what we have already done.—Longfellow.

Hungerford Building

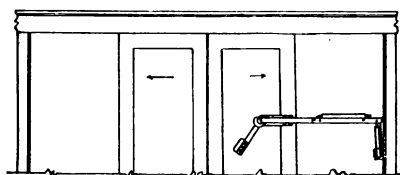
THE Hungerford is a sixteen story loft building situated at 76-78 La Fayette Street, 42-46 Franklin Street and 87-95 White Street, facing the Civic Center. It stands in the heart of commerce and transportation of New York City.

The building is absolutely fire proof and represents a notable achievement in buildings of this type, embodying the last word in up-to-date construction and conveniences.

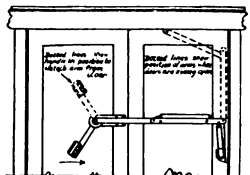
The enormous stock of metal carried in this building aggregates five million pounds of brass and copper in various forms.

The elevator doors operate on 32 Sets of Ideal Hardware, specified by Wm. E. Austin, Architect, and furnished through Howell, Field & Goddard.

Architect and owners state that the Ideal Elevator Door Hardware has given uniformly perfect satisfaction during the three years it has been in service.



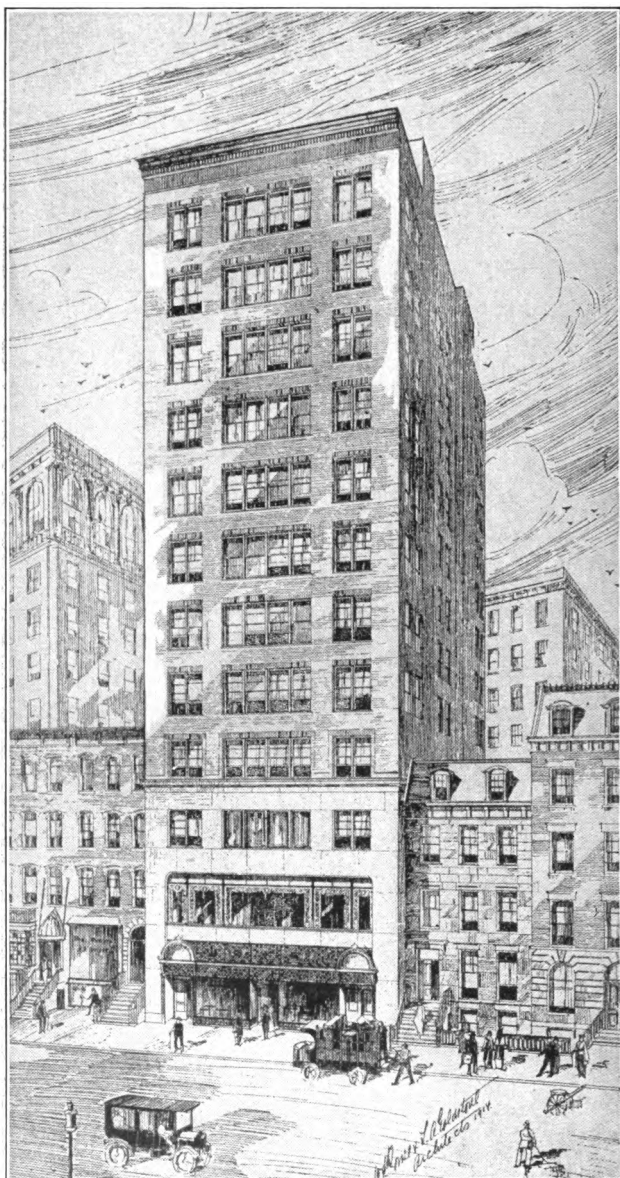
DOORS IN PAIRS



COMBINATION SLIDE & SWING DOORS

10-22-1921

Some people do not believe in the efficacy of prayer because they get what they deserve instead of what they ask for.



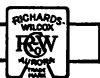
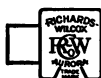
61-63 WEST 36TH STREET,
NEW YORK CITY, N. Y.

ERECTED BY A. L. MORDECAI & SON,
ARCHITECTS, ROUSE & GOLDSTONE.

Elevator Doors equipped with:
24 Sets "Ideal" Single Speed Hardware.
13 Sets "Ideal" Two-Speed Hardware with "Ideal" latches.

The only way an individual can help himself is to work for the
good of the hive.—Elbert Hubbard.

..10..



Mordecai & Son Buildings

The opposite page illustrates one of the imposing loft buildings erected by Mordecai & Son. They believe in "Ideal" Elevator Door Hardware. The elevator doors in this building at 61-63 West 36th Street are equipped the "IDEAL" way.

Read their statement.

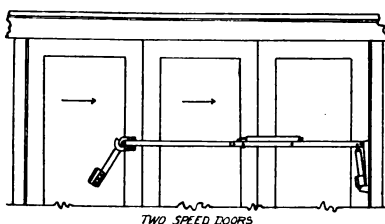
"Richards-Wilcox Mfg. Co.,
"85 Walker Street,
"New York City.

"Gentlemen:

"R-W 'IDEAL' Hangers and Elevator Bar Locks have been used and specified for the building operations of this Concern for the reason that they are scientifically constructed, finely finished of the correct material and stand without repairs the hard usage to which this class of material is subjected.

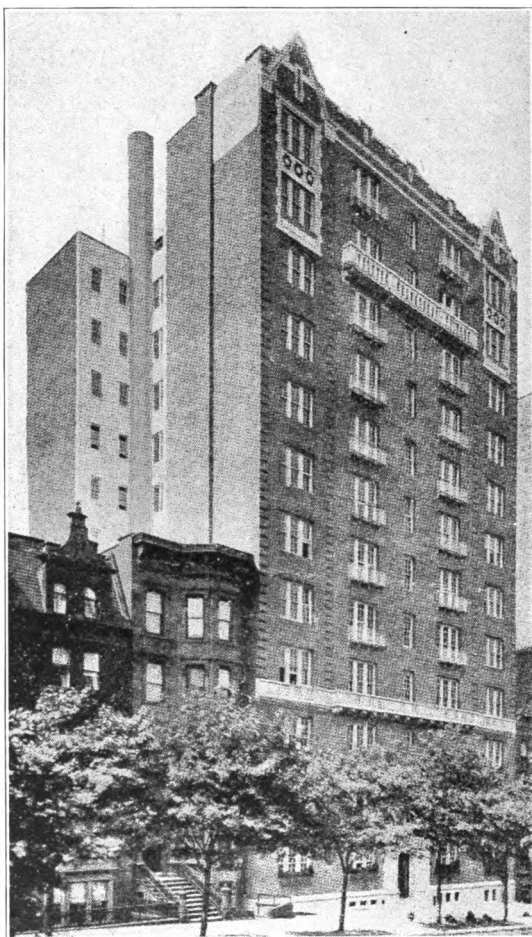
"A. L. MORDECAI & SON,

"(Per) Edwin Goldsmith."



Salesmanship is selling goods that won't come back to customers who will.

A Brixton Apartment Building

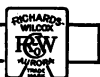
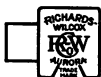


APARTMENT BUILDING, 137 WEST 79TH STREET,
NEW YORK, N. Y.

BRIXTON REALTY CORPORATION, OWNERS.
W. L. ROUSE & L. A. GOLDSTONE, ARCHITECTS.

25 sets of "Ideal" Elevator Door Hardware operate the doors in this handsome edifice. The Brixton Realty Corporation express themselves as highly pleased with "Ideal" Hangers.

One of the prime qualities of masterly work is initiative.



Free Want Ad Section

This space is reserved for you. Your ad may carry your address or we will key it and forward all replies promptly.

Our publications reach 28,000 hardware and implement dealers, architects, contractors and builders.

Businesses change hands and proprietors find just the man they want through these columns. Send in your ad. We will publish it three consecutive issues without charge.

POSITION WANTED — As architectural draftsman. Have had no experience in an architect's office, but have done work in my own office, aside from this have been a practical builder for seventeen years. Can furnish any amount of references desired. Am willing to start with small salary. Reason for change, business dull in this section, wish to locate in a larger field for business. Address, R. R. Hamilton, So. Boston, Va.

FOR SALE — 320 acres of land one mile from good Montana town. Fine place for cows and poultry. Address, H. L., care Doorways.



High Finance

A farmer rushed up to the home of a country doctor in the village late one night and besought him to come at once to a distant farmhouse. The medicine man hitched up his horse and they drove furiously to the farmer's house. Upon their arrival the farmer said: "How much is your fee, Doc?" "Three dollars," said the physician in surprise. "Here y'are," said the farmer, handing over the money; "the blamed livery-man wanted to charge me five dollars to drive me home."



Such a Good Cow

A simple-hearted and truly devoted country preacher, who had tasted but few of the drinks of the world, took dinner with a high-toned family, where a glass of milk punch was quietly set down by each plate. In silence and happiness this new Vicar of Wakefield quaffed his goblet, and then added: "Madam, you should daily thank God for such a good cow."



An "Ideal" Apartment Building

This beautiful apartment building, situated at Park Avenue and 84th Street, New York City, is one of many edifices erected by the Bing & Bing Construction Company.

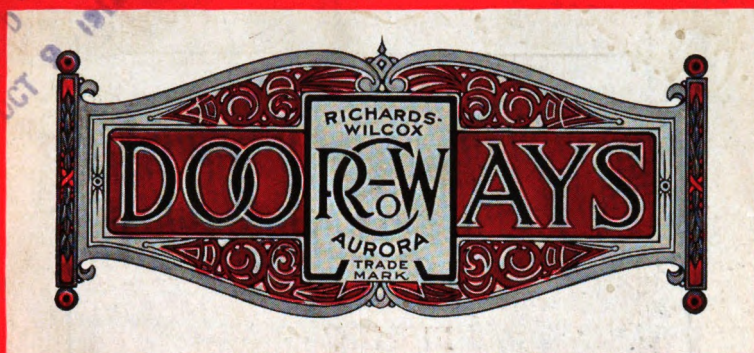
Fifty-five sets of R-W "IDEAL" Elevator Door Hangers were installed in this particular building. The Bing & Bing Construction Company believe in "Ideal" Elevator Door Hardware and state that it gives them perfect service.

A list of building owners and architects who have equipped their elevator doors with Ideal Elevator Door Hangers and Closers will be furnished to anyone interested.

Richards-Wilcox Manufacturing Co.

AURORA, ILLINOIS, U.S.A.

A Equip your elevator doors "the IDEAL way."



OCTOBER 1917



FISHIN'

No use to be wishin'
It's fishin' that counts —
Fishin' for business
In larger amounts —
Baiting your hooks
With service improved —
Casting your fly
Where the Big fish have moved.
Watchin' for nibbles
That soon will be bites —
Keepin' your eye
On the fishin' delights;
Waitin' and watchin'
And working the while,
Building your business
Thru fisherman's guile —
Say not a word
When the fishin' is bad,
Just keep on fishin',
They'll bit yet, my lad;
Use a better bait
And fish with more skill,
For fishin' beats wishin',
So says — "Pastor Bill."
—W. E. Fitch.





FOR OCTOBER, 1917

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Richards-Wilcox Canadian Co., Ltd.	London, Ont.

Volume 5

FRED C. WEST, *Editor*

No. 10

An Overhead Carrying Track System for Conveying Bananas

THE accompanying cuts are from photographs taken at the warehouse of the Waterloo Fruit & Commission Company, Waterloo, Iowa, an enterprising concern which has been using the Richards-Wilcox Overhead Carrying System successfully for some time past for the purpose of conveying bananas to their storage rooms from the refrigerator cars which bring them from the plantations.

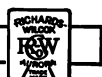
The losses due to mashing and bruising of bananas in unloading, if computed on a yearly basis, are enormous and would startle the average jobber who may pride himself on the efficient manner in which his Banana Department is conducted. The Waterloo Fruit & Commission Company find that this improved method of handling their delicate product, practically eliminates the losses formerly experienced on account of injured fruit.

By this new method of Overhead conveyance, which is in successful operation at several plants throughout the country, the bunches of bananas are handled but once in their trip from the unloading platform (or from the curb) to the various rooms; the individual carriers being separated from one another by interlocking rods, which not alone serve

The call to arms is the summons to opportunity.



DOOR-WAYS



the purpose of fastening a "train" of bunches together, but also prevent them from striking against one another while being swiftly conveyed.

A car can be unloaded in an incredibly short period of time, something less than one hour usually being required. Five men are generally employed for the whole unloading process, consisting of: hanging the bunches on the carriers in



OUT OF THE REFRIGERATOR CAR

the car; operating the lowering device as used at this plant, and for removing the bananas from the carriers in the basement. The system can, however, be operated efficiently with three men, using one man in the car, one in charge of the lowering platform, and the other in the basement.

A close scrutiny of one of the illustrations will acquaint the reader with what is perhaps the most meritorious feature of this system, the one which permits a movable spur of the track system to be run right into the refrigerator car itself, and right in the midst of the bananas.

Obviously a spur which can be utilized in such a manner,—that of extending itself into the very center of a car—can likewise be run in any direction, or accommodate itself to any situation or unloading arrangement.

The lowering device above mentioned consists of a small elevator or lift constructed through the

Some men are all fuse and no dynamite.

unloading platform adjacent to the car doors, and is provided with a strip of the overhead trackage to allow the "train" of bananas to roll right onto it.

After being lowered to the basement, the track on the lift again registers with the one in operation on that lower level, from which point the bananas roll off by gravity on inclines leading right through the centers of the various storage rooms. Here they are removed to stationary hooks.



INTO THE STORAGE ROOM WITH ONE HANDLING

A simple, yet convenient system of switches is used in conjunction with these tracks, which not alone facilitates the placing of the bunches in certain rooms (bananas showing turning color or partial ripening, for example), but also permits transferring from one room to another; as well as the rolling out of fruit for display purposes, and for supplying the packing and shipping department. The possibilities for utilizing the switching and cross-over system are virtually limitless.

The Richards-Wilcox Manufacturing Co. will be glad to give full information in reference to the above device or other overhead carrying systems adapted to machine shops, public garages, warehouses, factories, mills, etc., to those interested, and will have their Engineering Department go over any requirements and submit full plans and details applying to individual needs.

A garage is as convenient as its doorway. R-W Hangers make convenient doorways.



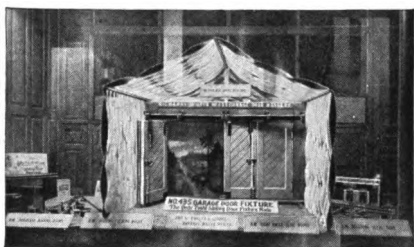
“Favorable Attention” In Window Dressing

By F. C. West

YOUR display window is the face of the store. Keep it clean and smiling. Your old customers who know your store for what it is worth, perhaps do not care so much about seeing it dressed up — but we hazard the assertion that you will sell more goods if you give them something pleasant to look at and think about.

Prospective customers who pass your place of business certainly judge you by appearances. Give your store a bright face in the way of an attractive window display for them to look at. Your inspiring “front” will be quickly reflected in the quickened pulse of your business.

Favorable attention is the first consideration in window trimming as well as advertisement writing. It is easy enough to get simply *attention*. If you doubt this, go out in the street and stand gazing at the sky in open-mouthed concern. You will soon have the attention of practically every individual in the neighborhood—but you won’t hold that atten-



tion very long unless you show them something worth while.

Favorable attention is the problem of the window trimmer. Neatness, orderly arrangement of products, presentation of one idea at a time, and background, are important factors in securing *favorable attention*.

The background is a vital feature of the window display. An attractive setting not only serves to show up the display but keeps the attention of the passerby from wandering away from the subject you are presenting — impresses on his mind one idea, for the time being.

The suggestions for background given here can be used effectively by the hardware trade and will undoubtedly lead to original conceptions on the part of the window trimmer which will prove of equal or surpassing value.

1. Hang a piece of chicken wire back of your window display, as long as the window and at least 4 ft. high. Secure a quantity of goldenrod cambric about half again as large as the wire. Sew the breadths of cambric together so that you

Slidetite spells economy in garage door hardware.



have it all in one piece. Push the cambric through the meshes in the chicken wire from the back and fasten with pins or sew wherever necessary to keep the goods in the desired shape.

This design may be varied by placing the wire a foot or more above the floor of the display window and arranging the cambric to hang in pleats below the wire, the pleating being formed from the lower point of each square at the bottom of the wire. Goldenrod furnishes a striking color and the artistic arrangement suggested will make a harmonious background for a display of hardware.

2. An attractive background made by smocking is the following:

Secure a quantity of goods about half again more than the area of your background. After sewing the breadths together, lay the cloth in even folds. Across the edges of the folds mark equal distances of any desirable length (preferably longer than the widths of your folds). Catch the edges of the first and second folds together at every other mark. Then catch the edges of the second and third folds together at the marks which you disregarded between the first and second folds. Attach the third and fourth folds at the marks disregarded between the second and third folds. Follow this procedure until you have smocked sufficient cloth to cover your background. A little experimenting with a piece of cheese cloth will give you the idea and avoid spoiling good material.

3. Puffing makes a very attractive background. A suggestion of color appropriate at the present time would be three strips of bunting; one red, one white and one blue. About four times as much bunting is required as the area of your background. A piece of fibreboard, upson board or something similar, cut the size of your background, may be used as a base. Cover this board with bookbinder's paste. Then, beginning at the upper left hand corner support the cloth with your right hand and with the left spread out your thumb and fingers on the bunting and then contract them, clawing the cloth together into an irregular puff. Continue this operation rapidly over the entire board. The result will be a background very attractive indeed.



Increase your business by pushing R-W sliding door equipment. One installation leads to another like chain letters until your community becomes supplied with R-W Products. And in the meantime your profits pile up.



A man may have a lofty aim and still be a poor shot.

Fighting Fires Before They Start

Reprint from June Factory

MANY a plant has innumerable walls but far too few fire-walls to prevent great damage when once a fire gets under way. The National Fire Protection Association believes that much may be done to make even ordinary partitions and walls fire-proof.

"Every advantage should be taken of existing walls to make them effective fire stops," the report goes on to say.

"This can be done by protecting all necessary openings such as doors, windows, shaft holes and so on and closing permanently all unnecessary openings.



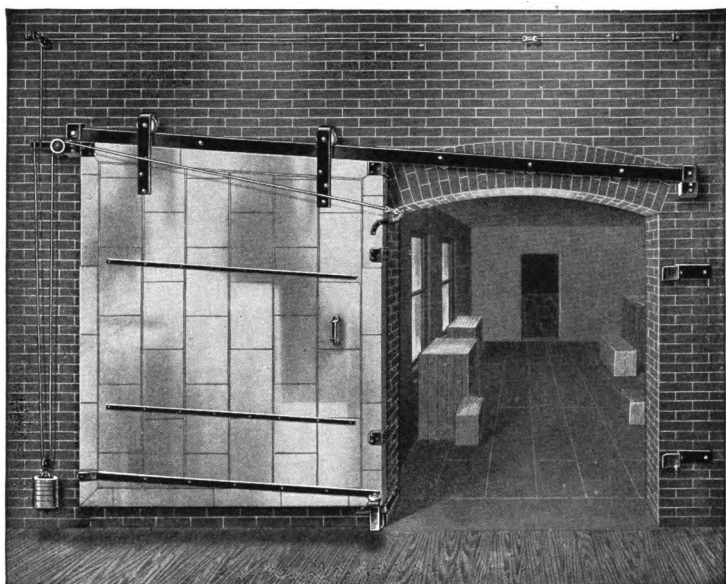
"There are standard fire-doors of many kinds designed to conform to all conditions. Fire-doors sliding vertically or horizontally, swinging doors, rolling steel doors, are available to meet varying conditions and have been classed as standard after

examination and tests by Underwriters Laboratories.

"Wood tin-clad doors are in common use for protecting large openings in important fire-walls. Solid steel doors are also used for this purpose as well as for smaller openings. Sheet-metal and hollow steel doors of various patented forms are also available. Rolling steel doors are available for openings where lack of space prohibits the use of doors of other types.

"For lighting purposes it may be necessary in some cases to retain a window in an internal wall. Approved fire-windows (wired glass in standard metal frames) are available for this purpose. They offer considerable resistance to fire."

Consult our ways for building doorways.

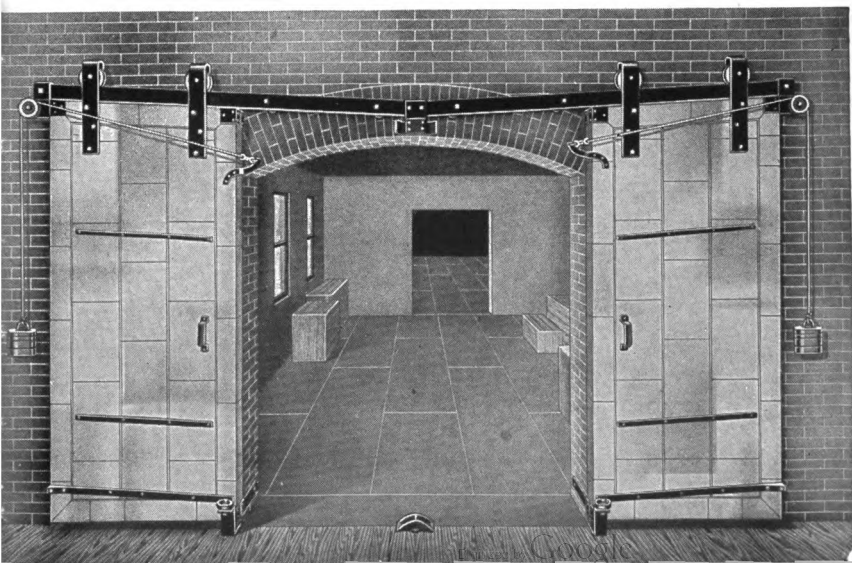


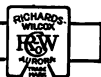
Richards - Wilcox Automatic Fire Door Hardware

*Inspected and labeled under direction of the
Underwriters' Laboratories, Inc.*

The R-W line of Fire Door Hardware covers every condition under which fire doors are installed and is the most complete and extensive line of Fire Door Hardware made.

Write for illustrated book, "Richards-Wilcox Fire Door Hardware." Sent without obligation.





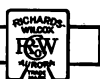
Our Red Cross Corps

YES, the girls on the front cover are real flesh and blood Richards-Wilcox girls. We call them our Red Cross Corps. When the Red Cross campaign was on, a few weeks ago, these four girls were chosen from our office force to canvass the plant. They gathered a tidy contribution for the Aurora Chapter — but it's no wonder! Who could resist such a compelling attack? Some of the men wanted to trade contributions for kisses — but the girls are good strategists and, so far as our knowledge goes, they got the money Scott free. After the campaign they wanted their picture taken, so we arranged them in front of our doorway and shot them. No, none of them are married.

Democracy

Again the truth is demonstrated that the Yankees are "there" when real necessity confronts them. The Liberty Loan is oversubscribed by millions; America's valorous youth unselfishly dedicates itself to the cause of democracy; captains of industry give over their plants to the Government; housewives busy themselves learning to preserve vegetables; the Nation denies itself wheat; the motor enthusiast denies himself gasoline — everywhere in "God's Country" there is concerted action — efficiency, if you please — to the end that lasting peace and a humanitarian termination of this bloody conflict may be accomplished. And the remarkable feature of all this efficiency is — that we didn't spend decades in military training under autocracy to learn what diligent devotion to duty means. Neither do we inherit the practice of rigorous economy through forced deprivation to the third and fourth generation under "Kultur." Democracy breathes into its subject freedom of thought and at the same time the spirit of personal abnegation for the good of his fellowman. That's why Democracy leads the world in critical emergencies.

A dead fish will drift with the tide, but it takes a live one to swim against the current.



Has Your Name or Address Changed?

Do we get your name right and mail Door-Ways to the correct address? Every now and again some good sport writes us that we are sending Door-Ways to a dead address. Economy is the watch word of the Nation and we don't want to waste anything valuable.

If you know that any copies of Door-Ways are being addressed to firms out of business or not interested for some other reason, we will appreciate your courtesy in letting us know, and proclaim you a good fellow.

P. S.— We don't want to cut off any live ones.



Have You Got What You Want?

The want ad section of our dealers' edition is spreading. This department is conducted for your benefit and we are pleased that so many appreciate the value of having their wants put before the eighteen thousand selected hardware dealers and jobbers as well as ten thousand architects and contractors who read "Door-Ways" throughout the United States.

We know that good results follow these advertisements because of the inquiries which pass over our desk every month and also because of the letters we get telling us that Door-Ways' want ads have made good.

We take out these want ads automatically after three insertions but would appreciate your advising us as soon as you have secured satisfactory results so that the space may be used for other purposes if it is not doing anybody good.



Your Bite

Eat one wheatless meal a day.

Eat beef, mutton or pork not more than once a day.
Economize in the use of butter.

Get the daily allowance of sugar in tea and coffee in other ways.

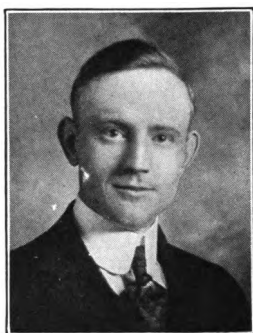
Eat more vegetables, fruit and fish.

Urge in the home and the restaurant the necessity of economy.



Traffic Service

AUGUST 1st Mr. C. W. Ashworth joined the R-W organization as Traffic Manager. Mr. Ashworth is a young man whose experience in legal and railroad traffic work makes him a valuable asset to the R-W organization. He has already demonstrated his ability to get results in traffic matters and his knowledge of the railroad business stands him well in hand in connection with the work under his charge in our service.



For the last four years he has handled the traffic work for the operating department of the Burlington system in the Aurora division, covering the territory from Chicago city limits on the east to Galesburg and Savannah on the west — a total mileage of some 700 miles.

As secretary of the Safety First Committee of the Burlington he had under his jurisdiction the handling of all claims resulting from personal injuries and stock damage, crossing accidents, freight claims, etc., in this division — his duties in that capacity bringing him into close relation with the Interstate Commerce Commission and giving him a broad knowledge of traffic rules and claim adjustments.

His association with us, we believe, will prove another valuable addition in the way of service to the patrons of the R-W line.

The best way to help your customers pay their bills is to get them to pay while the bills are small.



What Users Say About R-W Products

"There is no better track on the market than R-W No. 36.

"DICK STINSON,

"Centerville, Ind."

"We sincerely appreciate the kind of treatment you have accorded us, gentlemen, and will take great pleasure in going out of our way to speak a good word for the Richards-Wilcox Company.

"WHEELER-ELAM Co.,

"LEON WHEELER, *Sec'y-Treas.*

"Valparaiso, Ind."

"I am specifying your fixtures on all of my new garages with best of results.

"E. E. GAULT, *Arch't.*,

"Lafayette, Indiana."

"I have been using your hangers for some time and they give me excellent satisfaction.

"ALVIN E. HARLEY, *Arch't.*,

"1204 Kresge Bldg.,

"Detroit, Michigan."

The R-W Line

Sliding Door Equipment

For Barns Warehouses

Residences Churches

Garages Schools

Elevator Door Fixtures

Fire Door Hardware

Store Ladders & Shelves

Door Openers & Closers

Benches & Vises

Door Checks & Hinges

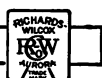
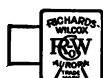
Hardware Specialties

Mounted Grindstones

Overhead Carriers

"A hanger
for any door
that slides"

R-W house door hangers slide easily and silently.



Speaking of Worries

The following bit of philosophy is said to have first appeared among the British soldiers in France. Probably it originated elsewhere, but it is pretty good philosophy, anyway.

"You have two alternatives: either you are mobilized or you are not. If not, you have nothing to worry about.

"If you are mobilized, you have two alternatives: you are in camp or at the front. If you are in camp, you have nothing to worry about.

"If you are at the front, you have two alternatives: either you are on the fighting line or in reserve. If in reserve, you have nothing to worry about.

"If you are on the fighting line, you have two alternatives: either you fight or you don't. If you don't, you have nothing to worry about.

"If you do, you have two alternatives: either you get hurt or you don't. If you don't, you have nothing to worry about.

"If you are hurt, you have two alternatives: either you are slightly hurt or badly. If slightly, you have nothing to worry about.

"If badly, you have two alternatives: either you recover or you don't. If you recover, you have nothing to worry about. If you don't and have followed my advice clear through, you have done with worry forever."

— C. M. D. Magazine.

The Function of the Stomach

The teacher was examining the class in physiology.

"Mary, can you tell us," she asked, "what is the function of the stomach?"

"The function of the stomach," the little girl answered, "is to hold up the petticoat."

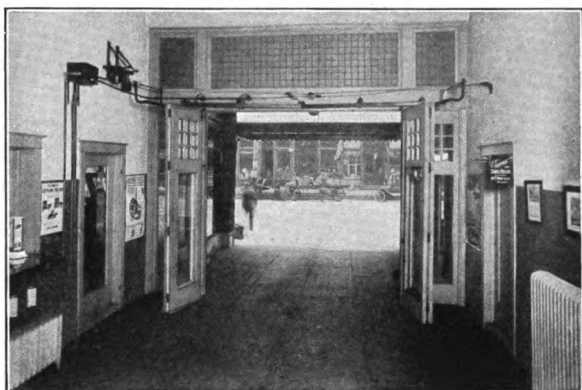


DOOR-WAYS



R-W STEWART

Electric Door Opener



As Essential as Gasoline in a Public Garage

Saves time. Saves labor. Saves heat. Saves money. Easily installed. Simple to operate. A touch of the finger on an electric button anywhere in the garage opens and closes the door. Costs less than 5c a day to operate. Designed for various styles of doors.

Write for illustrated booklet, "R-W Stewart Electric Door Opener." Sent without obligation.

Richards-Wilcox Manufacturing Co.

SAN FRANCISCO
LOS ANGELES
NEW YORK
CHICAGO

AURORA, ILLINOIS, U.S.A.

Richards-Wilcox Canadian Co. Ltd. London, Ont.
"A hanger for any door that slides"

PHILADELPHIA
MINNEAPOLIS
BOSTON
ST. LOUIS

What Users Say

BARTLETT'S GARAGE AND MOTOR LIVERY
2135-7-9 LINCOLN AVE.

BETWEEN GARFIELD AND WEBSTER AVENUES

Richards-Wilcox Mfg. Co.,
Aurora, Illinois.

Chicago, Ill., March 9, 1917.

Gentlemen:—

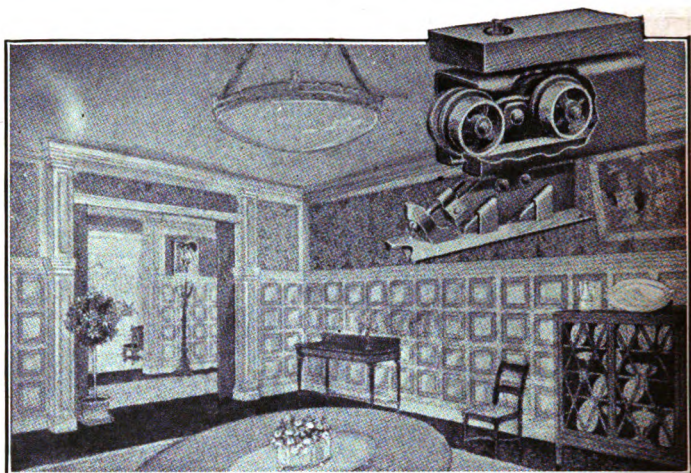
The Stewart Electric Door Opener and Closer cannot be surpassed. Not only is it a coal and heat saver, but also a great help to the business. I formerly had three men working on the night-shift, but since having your door opener it is only necessary to have two. The buttons all around the place enable any one to open and close the doors, and the speed they are opened for customers to get in and out the garage without waiting for a man to come and open the doors delights everybody. Wishing you every success, I remain,

Yours truly,

THOS. A. BARTLETT.

Seclusion — Space — Safety — Silence

Add charm to home life. These desirable features mark each home equipped with



Richards-Wilcox Sliding Door Hardware

In such homes father and mother may receive callers in the parlor, brother or sister entertain friends in the living room and the maid busy herself in the dinning room or kitchen, with convenience to all concerned.

R-W house door hangers have adjustments which provide for settling and shrinking of doors and building walls. Save space. Save heat.

Sold by the best hardware trade everywhere.
Write for folder.

Richards-Wilcox Manufacturing Co.

SAN FRANCISCO
LOS ANGELES
NEW YORK
CHICAGO

AURORA, ILLINOIS, U.S.A.

Richards-Wilcox Canadian Co., Ltd. London, Ont.
"A hanger for any door that slides"

PHILADELPHIA
MINNEAPOLIS
BOSTON
ST. LOUIS



November 1917

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The Average Man

(W. G. DOTY)

Here is a toast to the average man,
Patiently doing the best that he can;
Working away
For his average pay,
And knowing he's classed as an also-ran.

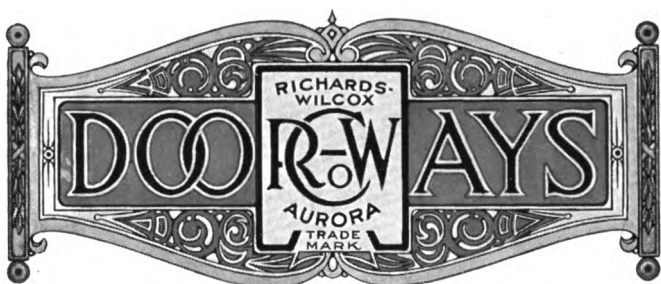
Faithful and cheerful and brotherly,
Making no boast of his honesty;
Doing the right
As given the light,
With never a taint of the Pharisee.

Helping a neighbor in need of his aid,
Marching lightheartedly, firm, unafraid;
Taking the pain,
The loss and the gain,
The pleasure and sorrow, as part of the trade.

Bearing the musket when need does arise,
Following duty, expecting no prize;
Doing his stunt;
Bearing the brunt;
Upright and looking all men in the eyes.

Claiming no right save as one of the clan,
Fighting the fights that his leaders began;
Plugging along
With the rest of the throng—
A pretty good scout is the average man.





FOR NOVEMBER, 1917

Published once a month to spread the truth about The R-W Line

Richards-Wilcox Manufacturing Co, Aurora, Illinois, U. S. A

Branches

85 Walker Street New York City	1735 Boatmans Bank Bldg. St. Louis, Mo.
15 East Lake Street Chicago	321 Plymouth Bldg. Minneapolis, Minn.
507 Arch Street Philadelphia	503 Equitable Bldg. Los Angeles, Cal.
132 Pearl Street Boston	324 Underwood Bldg. San Francisco, Cal.
Richards-Wilcox Canadian Co., Ltd. London, Ont.	

Volume 5

FRED C. WEST, *Editor*

No. 11

“SERVICE”

A MESSAGE FROM THE BOSS

IF a man write a better book, preach a better sermon or make a better mouse trap than his neighbor, though he build his house in the woods the world will make a beaten path to his door.”

There is no question in the minds of modern thinking people that when Emerson wrote these lines he expressed a great truth which will live to the end of time. In other words, applying this truth to common every day problems, the corporation, society or individual rendering better service than any other corporation, society or individual in its particular field of endeavor, will succeed to a degree in line with the service rendered.

WE have in the outskirts of our city a grocery and general store owned and operated by a young man named “Mike.” The main attraction at his store and the one which has made it famous is “Mike’s Ice Cream Cones”—which are always filled a little fuller at Mike’s than anywhere else.

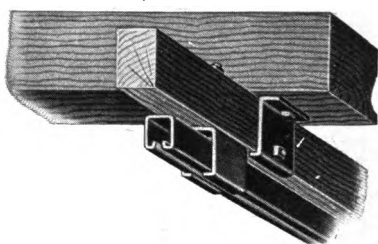
The result is that Mike’s is the most popular place of the kind in town and the youngsters especially get the habit of going to Mike’s.

Does it pay Mike? Well, I guess yes. It always pays in the long run to give good measure and good service.

THERE are several restaurants in our town. Some charge 25c for a meal, others get \$1.00 and up. Why this difference? You say we get more for \$1.00. More what? More comfort, more sanitation, better cooking, better quality. In other words the difference of 300% is not in the quantity but in the Service. Does this apply to you? It certainly does. It applies to every individual and every organization from the office boy to the boss and especially now, when we are in the midst of a world war demanding our maximum energies, the Dominant Idea Should be “Service.”

TRUCKING OVERHEAD

By R. A. HENDERSON



IN every factory, foundry, warehouse, machine shop or garage the handling of material, either in the raw or finished state is an item of considerable expense. Trucking and industrial railways were formerly the means of transportation employed, but the ever increasing problems of manual labor, surface space, waste motion, lack of efficiency, time and accidents resulting, made it imperative that a more efficient method be adopted.

Space on the floor is obviously at a premium; the floor must have a smooth and unobstructed surface to allow a truck to pass easily over it, and a strong man can handle from two hundred to five hundred pounds by means of the truck. But the floors in a busy workshop cannot be kept clear and the trucks and men will be in each others' way causing congestion, blocking progress and endangering the material and the lives and well being of the workmen, wasting time and a tremendous amount of effort. Floor space in these days of high surface and frontage cost, is needed for display and for the finished product. It is a lack of good business judgment to allow so valuable and expensive a space to be cluttered up with slow moving small carriers, and business to be held back while they move.

Overhead carrying systems where construction of the building, and the method of handling the product allow, are the most satisfactory, economical, and efficient methods of handling transportation. It takes all the bulk from the floor where space is needed, and suspends it from the ceiling where there is space to spare, no floors to wear out, no moving of trucks to allow others to pass, no wasted time and no wasted energy.

THE Richards-Wilcox Mfg Co. manufactures every style and kind of Overhead Carrying System that stands for efficiency, economy and time and labor saving. We have any size track, with any size or style of carrier, that will handle loads from the lightest to the heaviest with the greatest ease and economy; Brackets to meet any construction condition, and by means of switches, cross overs, and turntables any part of the building can be reached with the same ease that operates in the

Service is the big thing in life; we make it the dominant idea in our business.



DOOR-WAYS



modern railroad switchyard. One man can stack cases or bundles on top of each other and in much less space than when done by hand.

The man who can handle from two to five hundred pounds on the shop truck can move a load twenty times as heavy by means of the R-W overhead carriers, in less time and with less effort, thereby saving the time and wage of a goodly number of men as well as the confusion and delay caused by the greater number trying to work in the same place at the same time.

Particularly now, the labor and time saving devices assume a greater value than ever before, since men from all walks of life are being called to the colors, and are leaving their places vacant, and to be filled, quite probably, by the inexperienced. There is a world scarcity in all necessities and luxuries, and the world is looking to the United States to supply these wants. Because of this factories are working at their utmost speed, at capacity output. Hundreds of the world's best and best known factories have saved money and greatly increased the capacity by installing Richards-Wilcox Trolley and I-Beam overhead carrying systems in their plants.

PAGES of letters could be given testifying to the great saving in time, space, and money and to the increased efficiency resulting from the installing of these carriers, but a few will illustrate. One supply company lost money on every piece of pipe threaded, until they used our overhead system. Now they are making a good profit. A nationally known automobile manufacturing company has ordered overhead carrying systems placed in all their agencies to reduce overhead

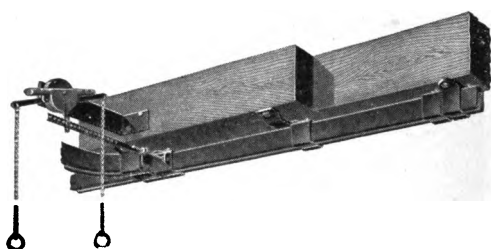


No. 100-32 and 100-35
R-W Overhead Carriers and Trolley Track

and facilitate service and convenience. Leading architects, in drafting plans for factories, warehouses, and garages specify overhead carrying systems.

This method of transportation is rather a new one and like all new conveniences must be brought to the attention of the prospective user, and the Dealer handling R-W products is

One man can carry 8,000 pounds with a Richards-Wilcox Overhead Carrier.



No. 931 and No. 933 Two-way Switch

passing up a large and profitable field if he overlooks the wonderful possibilities contained in our Overhead Carrying Equipment, and the co-operation given in this branch by our Engineering Department, which is maintained for the express purpose of designing special or adapting standard appliances for the economical handling of products. Our Engineering Department consists of men having the highest technical and practical experience and knowledge, men to whom the knottiest problems can be submitted and who will give the best possible solution and without cost. Just give them a trial and be convinced.

Watertown, South Dakota

THE Congregational Church recently finished their new edifice. This fact interests Door-Ways readers because the sliding partitions in this church operate on five sets of Richards-Wilcox Accordion Door Hangers.

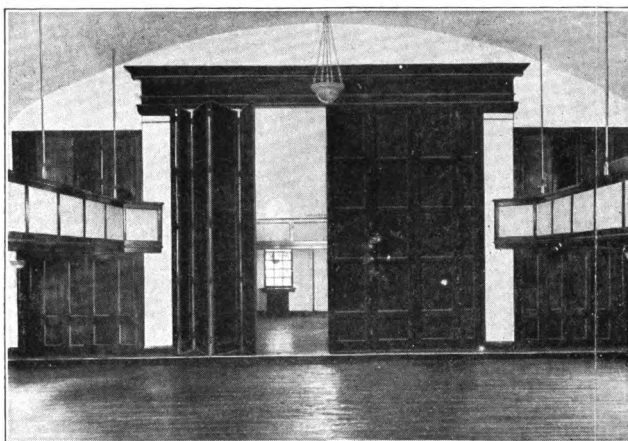
The doors in one of these partitions are of extraordinary size; in fact they are larger than ordinarily recommended for this style of equipment. They operate perfectly, as will be noted, and Captain M. A. Hockman, the architect who designed the church, states that "R-W Accordion Door Hangers would successfully operate doors fifty feet high."

Mr. Trotter, superintendent of construction, gives in his letter published below, further facts regarding the purpose of the doors and the ease with which they operate.

"By this picture you will see we have five sets of your Accordion Fold Hardware.

"The four smaller sets are just ordinary sized openings but the larger set is unique from the size of the opening. This opening is 23'-4" wide and 18'-5" high. Capt. M. A. Hockman, the Architect, was inclined to be skeptical as to the operation of the doors, but since he has tried them he says doors 50' high can be operated with that system. These doors are used to make the two auditoriums in the Congregational church, into one for special services.

"As you can see by the picture we have six full and two half doors thus making the large doors wider than you recommended, but they work perfectly and without any binding.



Accordion Doors 18'5" high in Congregational Church at Watertown, S. Dak., hung on Richards-Wilcox Accordion Door Hangers

"I am glad to be in position to speak a good word for your products and anything further I can tell you in regard to these doors, etc. I will be glad to do.

"Very truly yours,

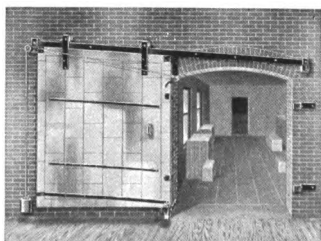
"F. C. TROTTER,

"Supt. Const., Cong. Church,

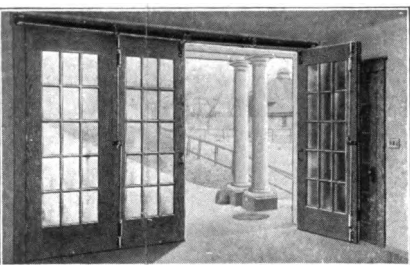
"Watertown, S. Dak."

Five Tons of Fire Protection

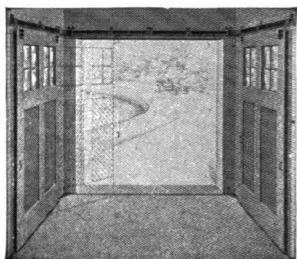
THE Mason City Brick and Tile Co., of Mason City, Iowa, are equipping their plant with Richards-Wilcox fire doors and automatic fire door hardware. They believe that prevention is safer than palliation and are protecting their big plant with nearly ten thousand pounds of fire doors and automatic hardware.



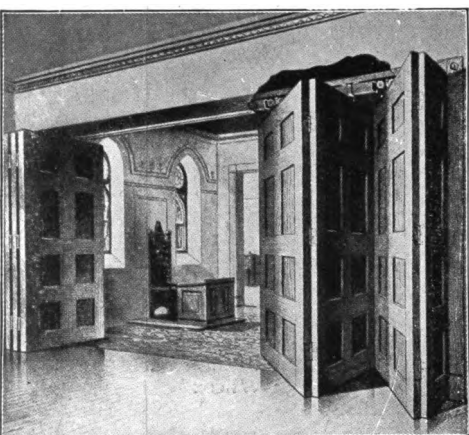
They had to have hardware adapted to various conditions of installation and were able to secure from Richards-Wilcox just the right equipment for each doorway as the R-W fire door line covers every condition under which fire doors are installed and is the most complete and extensive line of Fire Door Hardware made.



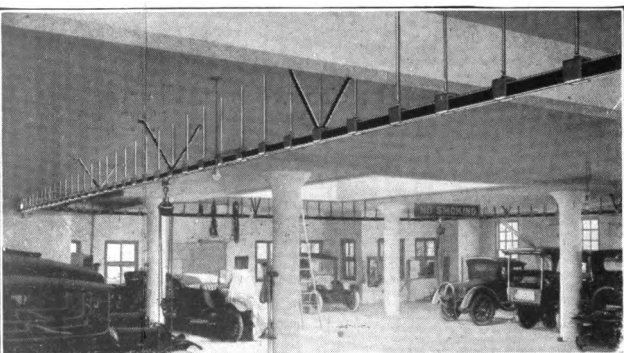
Slidetite Hardware Used Largely for Garage Doors



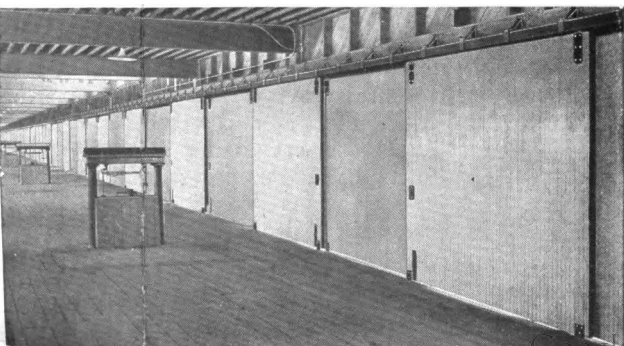
Receding Door Hardware. For Garages and Similar Doorways



Sliding Partition Hardware. For Churches, Schools, Libraries, etc.



Overhead Carrying Systems



Freight House Door Hardware

R-W



Suits all these requirements

There is a
for use on a

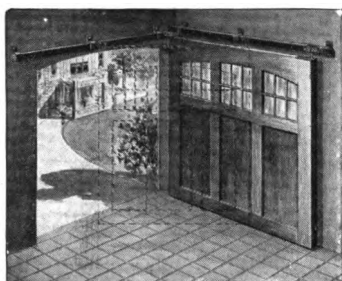
It eliminates
class of building

Our General
Doorways to
hangers for

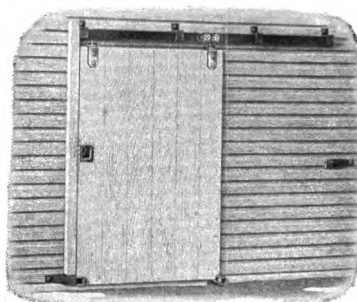
Richard



Parallel

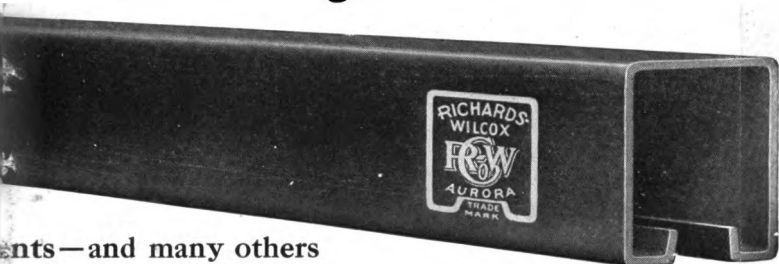


**Right Angle Door Hardware. For
Garages, Warehouses etc.**



Barn Door Hardware

Trolley Track



ents—and many others

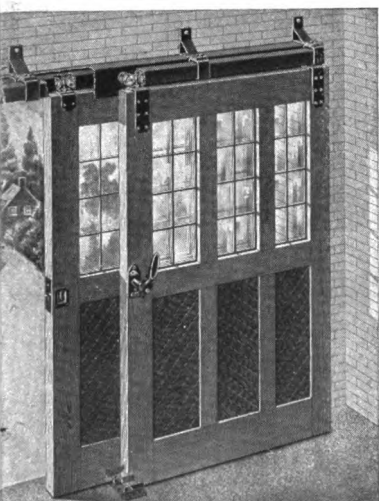
big advantage to you in being able to sell the same style track
variety of jobs.

es the necessity of carrying a small stock of track for each
ding, and buying at the small order price.

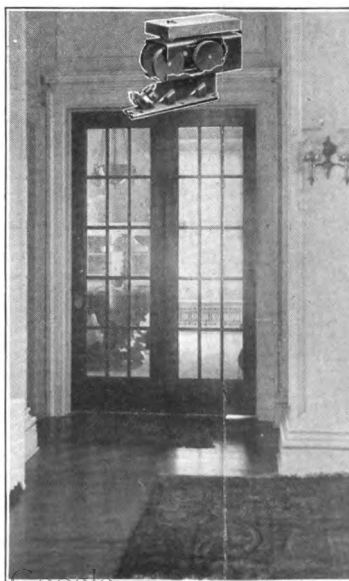
ral Catalog illustrates and describes in detail the various types o
o which R-W Trolley Track is effectively adapted, and present
the doors. You should have a copy. Sent without obligation

Richards Wilcox Manufacturing Co.

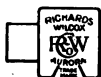
AURORA, ILLINOIS, U.S.A.



**Door Hardware. For Garages, Barns,
Factories, Warehouses, etc.**



House Door Hardware



THE COST OF THOUGHT

By ELBERT HUBBARD

EVERY employe pays for superintendence and inspection. Some pay more and some less. That is to say, dollar-a-day man would receive two dollars a day if it were not for the fact that someone has to think for him, look after him and supply the will that holds him to his task. The result is that he contributes to the support of those who superintend him.

Make no mistake about this. Incompetence and disinclination require supervision, and they pay for it, and no one else does. The less you require looking after — the more able you are to stand alone and complete your tasks — the greater your reward. Then if you can not only do your own work, but can direct intelligently and effectively the efforts of others, your reward is in exact ratio, and the more people you can direct and the higher the intelligence you can rightly lend, the more valuable is your life.

Going down the scale, you can find men who will not work for themselves and no one can make them work, and so their lives are worth nothing and they are a tax on the community.

Your Garage's Face

WHAT your face is to you the doorway is to your garage — an index of character. Character in you and in your garage develops from conscientious striving to fulfill a high ideal. If your ideal in life is high enough, it follows as surely as crowds seek happiness, that your character will attain a corresponding height.

When the Richards-Wilcox Manufacturing Company set out to manufacture doorways forty years ago, they swore that they would give the world door hangers of the highest character conscientious endeavor could develop. Perhaps that's the reason Richards-Wilcox garage door hardware beats the world for convenience, economy and architectural beauty of entrance.

"Distinctive Garage Door Hardware," published by Richards-Wilcox for the benefit of those who build garages or handle garage hardware, tells what R-W Slidetite and other styles of garage door hardware are made of. They will be glad to furnish you a copy without obligation.



SUNDAY SERVICE

By THE SALES MANAGER

ON a recent Sunday morning at 10:30 o'clock a wire was received from one of our salesmen asking for immediate (Sunday) shipment of the first installment of an order for 28½B hangers, track and brackets for army cantonment buildings. This was an unusual request, but it was for Uncle Sam, so messengers were dispatched thither and yon, men were summoned from church and within half an hour Superintendent Hoffman had a force at the factory preparing the order (a good sized one) for shipment; and at 12:20 the job was done and material was delivered on the job 400 miles away by 9:30 Monday morning. Going some! But service counts and we have since received a second order for the same job.

One day last week we secured a fine order for hangers and track for another army cantonment job. The order was phoned in to us at 4:40 and before six o'clock shipment was enroute by express. Service!

The next day an order from the South (another Government job) came in at 3:30 and at 4:30 our trucks were delivering the material to the express company. Service, again!

A few days ago our Boston Office wired us to ship immediately, 400 pair No. 28V hangers, 4800 feet No. 32 track and 1400 brackets. Track and brackets were shipped same day and hangers next day. Service?—we guess yes!

On August 4th one of our representatives wired to have ready for shipment not later than August 8th, 750 pair No. 28V-1 hangers, more than 13,000 feet of No. 32 track and some 5,300 brackets. Our stock of this particular hanger and track was badly shot on account of previous heavy demands, but the above carload shipment went forward to Uncle Sam on schedule time just the same. The DOMINANT IDEA, did you say? Yes, SERVICE — and with a big S.

Hog In No Hurry

A Southerner, riding through the White mountains, came up with Mr. Shaw leisurely driving a herd of pigs.

"Where are you driving the pigs to?" asked the rider.

"Out to pasture 'em a bit."

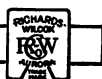
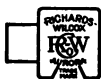
"What for?"

"To fatten 'em."

"Isn't that pretty slow work to fatten 'em on grass? Where I come from we pen them up and feed them on corn. It saves a lot of time."

"Yaas, I s'pose so," said Mr. Shaw. "But—what's time to a hawg?"

Adam owned the earth. His experience should be a lesson to those who want to own it now.



A Page of Opinons

"Slidetite is the best garage door equipment I ever used or saw."

W. A. RISINGER, *Arct.*,
Indianapolis, Ind.

"Your catalog arrived a few days ago, for which I thank you very much.

"Any time I have the opportunity to do so, I will recommend or install your hardware; as I consider it the best obtainable for the purposes designed."

F. I. TROTTER, *Supt. Const.*,
Watertown, S. D.

"Some time ago you sent us a set of Garage Door Equipments to replace another set previously bought which had proved unsatisfactory. This new Equipment has proved so satisfactory that one of our customers wishes to equip another set of doors that are the same size and will simply require duplication of one set. Will you refer to your files and kindly let us know the present price and what information it would be necessary for you to have to fill the order properly?"

THE FAIRBURY PLANING MILLS, *Cons.*,
COLLIER LUMBER CO.
By O. G. COLLINS.

"We have now been using your Stewart Electric Door Opener and Closer in our Garage for some little time, and wish to advise that we have nothing but the highest praise for this device.

They are a great convenience and time-saver, and have never failed us since their installation."

LOUIS GEYLER COMPANY,
(Signed) F. M. BUSBY,
Treas. and General Manager.

"Have used your hangers on many garages, in fact I have them on my own garage and they are very satisfactory."

F. A. CARPENTER, *Archt.*,
Rockford, Ill.

"Have used a number of your hangers this year and propose to continue their use. Find them the best on the market."

F. F. BOSSUOT, *Archt.*,
Havre, Mont.

The Origin of Thanksgiving



THANKSGIVING was first observed in the United States by the Pilgrims at Plymouth in the fall of 1621 after they had gathered their first harvest. History records that fall festivals were celebrated by the ancients and have been observed with more or less religious significance down through the centuries. It seems to have been instinctive that man should return thanks to his Creator after the harvest.

Our forefathers were Englishmen, who had undoubtedly witnessed the celebration of the harvest festivals of England. It is not strange then that they should ap-

point a festival of thanksgiving for the bounties which Nature had heaped upon them after their first summer in the new world.

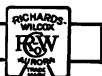
They devoted a week to the occasion. Four hunters, selected by the Governor for their exceptional skill, went into the forest for wild fowl to supply the tables. Feasting, military maneuvers and outdoor games were indulged in for almost a week. They entertained Chief Massasoit and 90 of his tribe for three days. The Indians went out and killed five deer which they presented to Governor Bradford and others in authority.

The tables, presided over by the good housewives, groaned with good things to eat. Sea foods they had in plenty; ducks, geese, venison, partridges and turkeys; barley loaves, Indian meal cakes, wild fruit including plums, peaches and grapes, possibly grape juice and apple cider—and pumpkin pie. Their abundance was unlimited and their gratification unbounded.

In the years which followed, the fortune of the Pilgrims was not always favorable and Thanksgiving was observed with more or less irregularity among the different Colonies. The Massachusetts Bay Colony set apart a Thanksgiving Day for the first time in 1630 and frequently thereafter until about 1680 when it became an annual festival in that Colony. Connecticut observed Thanksgiving Day as early as 1639 and annually after 1647 except in 1675. The Dutch in New Netherland appointed a day for giving thanks in 1644 and occasionally thereafter. During the war of Independence the Continental Congress appointed one or more Thanksgiving Days each year except in 1777, each time recommending to the executives of the various States the observance of these days in their States.

President Washington appointed a day of thanksgiving Thursday, November 26th, 1789, and another in 1795. One was annually appointed by the Governor of New York from 1817. In some of the Southern States there was opposition to the observance of such a day on the ground that it was a relic of Puritanic bigotry, but by 1858 proclamations appointing a Day of Thanksgiving were issued by the Governors of 25 States and two Territories.

President Lincoln appointed the fourth Thursday of November, 1864, and since that time each President has annually followed his example.



The Seductive Advertisement

"I'll sell my house," said Hawley Rae,
"And build another on the Hill
Where all the fashionables live.

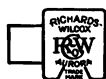
These common districts make me ill."
And so he summoned instantly
A real estater to his bosom,
A blithe and elegant young man
Just bubbling with Enthusioosm.

The real estater saw the place,
Examined it from stone to slate,
And said: "I'll sell it for you sure,
The possibilities are great.
I'll write the ad, this very day;
Call in tonight and you may read it;
A house like yours is rather scarce,
I know a score of folks who need it."

Rae called. He read the ad. with care,
With growing interest and surprise.
The real estater's polished art
Brought honest wonder to his eyes.
The hardwood floors, the noble yard,
The handy features of the place;
All these were mentioned in a style
Of wondrous literary grace.

"It suits?" the real estater said,
The author's smile upon his lips.
"You bet it does," responded Rae,
His hands a-resting on his hips.
"I didn't think the place was so
Desirable and fine and fair.
Look here. It's not for sale, old chap,
I'm going to keep on livin' there!"

—*Calgary News.*



This space is reserved for you. Your ad may carry your address or we will key it and forward all replies promptly.

Our publications reach 28,000 hardware and implement dealers, architects, contractors and builders.

Businesses change hands and proprietors find just the man they want through these columns. Send in your ad. We will publish it in three consecutive issues without charge. When you get desired results before the third issue, kindly advise us so we may put a new ad in your space. Our forms close on fifth of month preceding date of issue.

FOR SALE — To manufacturers on a royalty basis, or patent sold outright.

Automatic Casement Window Adjuster and Lock. The best in the United States. Easy to make at low cost. Simple and strong in construction. Never fails to sell and satisfy. Small capital will put it on the market. Operates through inside screen when sash swings outwardly. Good terms to those who mean business. Address, M. T. S., care Door-Ways.

FOR SALE — Hardware business invoicing \$12,000. Annual sales \$40,000.

Must sacrifice because of poor health. Address, E. M. A., care Door-Ways.

FOR SALE — An A No. 1 opportunity for a live man to buy an old established hardware store, tin shop, slate roofing, and warm air heating business located in one of the best manufacturing towns in the Pittsburgh, Pa., district. Will invoice about \$15,000 or \$18,000. Part of the stock can be reduced. The average sales for the last three years were over \$55,000. This can be increased from 20% to 25% by a live wire. This is an unusual opportunity into which to slip. A splendid paying business. Will either sell or rent building. Unable to attend to business on account of poor health. Will bear the closest investigation. Don't answer unless you mean business. Address "Bargain," care Door-Ways.

FOR SALE — Hardware stock invoicing about \$4,500. Located in central

Ohio in town of about 1,000 population. Reason for selling, wish to go into furnace business. Address, K. D. P., care Door-Ways.

FOR SALE — Dalton adding machine in good condition, \$80 if taken at once. Address, Shupe Bros., Clarion, Iowa.

LOOK ALIVE

By WALT MASON

If you're selling shredded cheese, look alive; thus your customers you'll please, look alive; even though your trade be punk, so you scarcely made a plunk, spring a cheerful line of bunk — look alive! When a man comes to your store, look alive; thus you'll sell a whole lot more, look alive; for the man who'd spend a bone, has some troubles of his own, and you bore him with your groan — look alive. Let your tale of woe be brief, look alive; deal in anything but grief, look alive; if you are inclined to roar, or to sulk about your store, haste to show yourself the door — look alive! If you are a weary clerk, look alive; poorly paid for heavy work, look alive; blithely work and watch your chance (you will have it!) to advance; otherwise your name is Pance — look alive! Act as though you liked your job — look alive! No one profits by a sob — look alive! For the sore disgruntled lad, with a face morose and sad, always finds the sledding bad — look alive! If alive, march with the crowd — look alive! If you're dead, go get a shroud — look alive! All the cheerful boys are wise, and the ones with weeping eyes hardly ever win a prize — look alive!

Richards-Wilcox Door Closer and Check



A NEW APPLIANCE— OLD IN EXPERIENCE

To you, perhaps, the R-W Door Closer and Check for swing doors needs no introduction. We placed it on the market two years ago but have never advertised it because we could not fill the orders as fast as they came in. The material we insist on using in the manufacture of this Door Check has been hard to get and we refused to fill orders with a substitute.

Lately our efforts to get this material have met with better results; that's why we are presenting the Richards-Wilcox Door Closer and Check publicly now for the first time.

Reasons Why Richards-Wilcox No. 643 Has Met With Particular Favor Among Users

Spring cannot be overwound.

Liquid occupies separate chamber from spring mechanism which prevents leakage of oil.

Adapted to right or left hand swing doors.

Simple and effective spring adjustment.

All parts machined to a perfect fit and are interchangeable.

Made in six sizes for various weights of doors.

Regularly finished in gold bronze. Finished in silver bronze or ivory black without additional charge. Prices for other finishes on application.

Fitted with soffit, flush or corner bracket; or furnished without bracket.

No. 643 Door Closer and Check is a worthy addition to the R-W line and conforms in every respect to the high character established by Richards-Wilcox products. It will sell itself in your community if you give it a start.

Write for folder giving complete description and prices. Sent without obligation.

Richards-Wilcox Manufacturing Co.

AURORA, ILLINOIS, U.S.A.

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December
1917

Digitized by Google



Marching Song of America

By Chas. B. Martin

"Onward valiant soldiers,
Marching to the war,
With our flag, Old Glory,
Going on before.
With our friends united
'Gainst the ruthless foe,
Forward into battle
Let our banners go.
Onward valiant soldiers,
Marching to the war,
With our flag, Old Glory,
Going on before.

"Freedom's mighty army
Moving to the fray,
Rank on rank advancing
Glorious battle day,
Joining with our brothers
Far across the sea,
Fighting to establish
World democracy.

"Onward then ye soldiers,
Forward fighting band,
With Old Glory leading,
Hope of every land.
Right will surely triumph,
God in whom we trust
Victory will give us
For our cause is just."





FOR DECEMBER, 1917

Published once a month to spread the truth about The R-W Line

Richards-Wilcox Manufacturing Co., Aurora, Illinois, U. S. A.

Branches

85 Walker Street New York City	1735 Boatmans Bank Bldg. St. Louis, Mo.
15 East Lake Street Chicago	321 Plymouth Bldg. Minneapolis, Minn.
507 Arch Street Philadelphia	503 Equitable Bldg. Los Angeles, Cal.
132 Pearl Street Boston	324 Underwood Bldg. San Francisco, Cal.
Richards-Wilcox Canadian Co., Ltd., London, Ont.	

Volume 5

FRED C. WEST, *Editor*

No. 12

Public Garage Doors

By E. J. G. PHILLIPS

IN THE selection of the type of doors to be used for the main entrances to public garages, certain things must be taken into consideration which do not enter so largely into the subject when applied to private garages.

The doors must be as nearly fool proof as possible because they are operated by a large number of individuals more or less indifferent as to consequences, and it is useless to expect the same care in handling as would be received if a very few persons directly interested through ownership were to open and close the doors.

Ease of operation is an important feature which is emphasized by the large size of many of the doors. Safeguards against sagging and dragging on the floor are also very essential. Safety for the patron and his car must be assured by using a type of door which cannot accidentally close in the face of an approaching car.

Time is another important factor, both to the garage man and the patron. The patron cannot be kept waiting for some one to come from the repair shop or a distant part of the building to respond to his call for admission, and on the other hand it becomes mighty expensive for the garageman to keep a man constantly at the doors during the winter months or allow the workmen to be taken from their work to open or close the doors. The time consumed by a man in walking from a distant part of the room to the doors, opening the doors, waiting for the patron to enter, closing the doors, walking back to his work and in getting back to an efficient working basis after the interruption, amounts to considerable during one winter's season.

♦ ♦ ♦

Sham battles do not kill—Sham hardware does not count

These considerations often lead to the use of electrically operated doors, not only as a matter of convenience, but as an economy because of the time which can be saved. The doors are positively controlled by push buttons located at convenient points in the building. One is usually located in the office at the stenographer's or bookkeeper's desk and most of the day calls can be answered from this point without interfering with any one's work, and, therefore, at practically no expense, the cost of current being negligible. Two hundred operations per day consumes but six kilowats per month. At the rate of ten cents per kilowat the monthly expense for electricity would be about 60 cents. This slight expense is undoubtedly more than offset by the saving in heat due to prompt closing of the doors.



FIG. 1. A PRACTICAL PUBLIC GARAGE DOOR

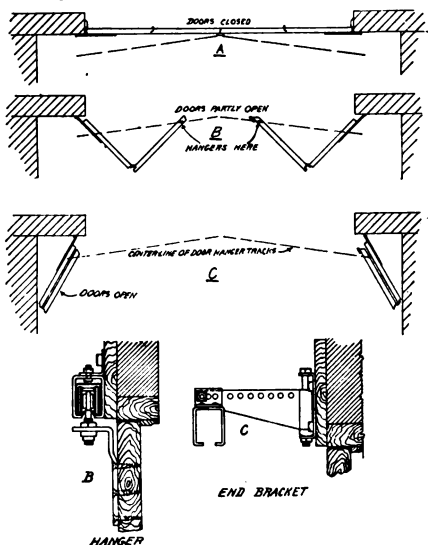


FIG. 2 SHOWING DOORS IN VARIOUS POSITIONS AND BRACKETS FOR HANGING

The door shown in figure 1 is a good example of a safe and practical public garage door. It is intended for manual operation. The door is built in four sections, hinged together in pairs of two. One pair of doors fold toward one side, and the other pair fold to the opposite side. The photograph shows the doors partly open. The set of plans, figure 2, shows the doors closed at A, partly open at B and entirely open at C.

Hangers are attached to the upper corner of the doors as indicated. (See figure 2). These hangers run in a box-shaped track over the top of the opening and by this means are guided and kept under positive control. Vertical adjustment is provided in the hangers so that the doors can always be kept from dragging on the floor. These doors can be fitted to the opening very tight and are locked securely by top and bottom bolts from the inside.

This particular door can be very easily adapted to operation by electricity. Interior views of the installation of that kind are given in figure 3, where the doors are shown in various positions. About six seconds is required from the time when the button is touched

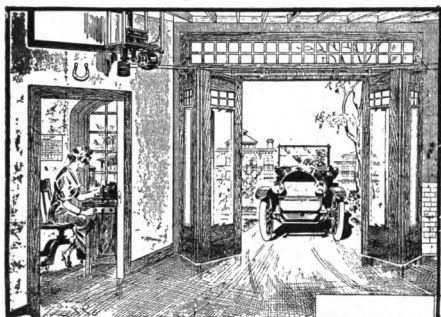


FIG. 3. ELECTRICALLY OPERATED FOUR SECTION SLIDING FOLDING DOORS

until the doors are entirely open. Limit switches are provided to stop the doors automatically at the end of each movement.

It is frequently desirable to have a direct outside entrance from the garage so patrons or employes may walk in or out without passing through the office or salesroom and at the same time avoiding the necessity of opening the large doors. This may be easily accomplished by building a wicket door in one of the main doors. This wicket door is hung on hinges and is

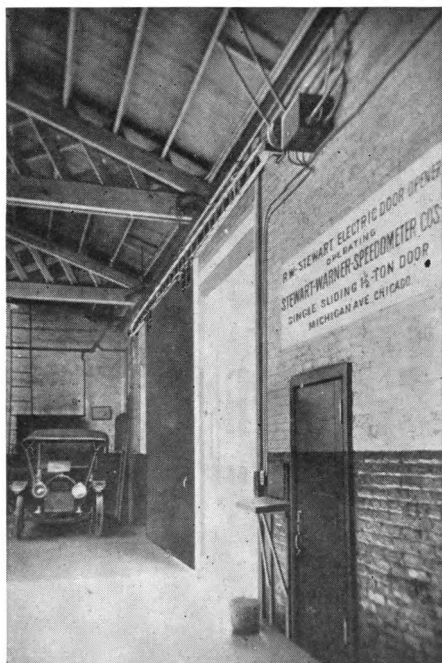


FIG. 4. EXTRA LARGE SLIDING DOOR ELECTRICALLY OPERATED

What you get that you do not earn does you just about that much good

held shut by a door check specially constructed so the arms do not project from the door to endanger the top of a passing car. A steel threshold under the wicket door serves to hold the main door in shape.

Sliding doors, either single or in pairs, are safe and altogether practical where conditions permit. If hung on ball bearing hangers of suitable size, their operation manually is simple and easy. Effective means are also provided in the hangers to keep the door adjusted free from the floor.

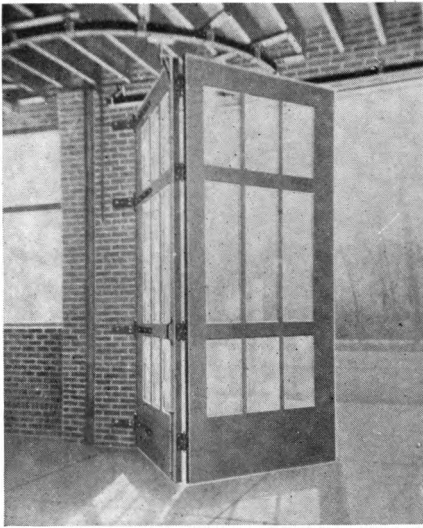


FIG. 5. A FOLDING DOOR OF UNUSUAL TYPE

This 12x12 foot opening is closed by two doors hinged together and hinged to the jamb at one side. The side of the door farthest from the hinges is supported and guided by a hanger which slides in a track attached to the front wall. Another hanger is attached to the doors where they are hinged together in the center. This hanger operates in the curved track shown attached to the ceiling joists. This door is manually operated and is a practical door for large openings where it is essential to open the doors toward one side only.

"Distinctive Garage Door Equipment," an interesting book published by the Richards-Wilcox Manufacturing Co., of Aurora, Ill., for use of those interested in garage door hardware, describes and illustrates various types and styles of garage door equipment for different conditions. Copy of this book will be mailed without obligation to anyone interested.

♦ ♦ ♦

One good sale begets another

..4..

A very large sliding door, weighing 3200 pounds, operated by electricity, is shown in figure 4. On account of its size this door requires a few seconds more of time to open than the door previously referred to, but its operation is just as sure and positive. Other details, such as push buttons and limit switches, are similar to that of the first mentioned door.

A rather unusual type of door is shown partly open in figure



How to Write Advertisements

By FRED C. WEST

EVERY purchaser passes through certain mental stages before he buys. Salesmanship is ability to develop these mental stages. Advertising is that part of salesmanship which has to do with the *education* of the prospective purchaser concerning his need of the article to be purchased.

Advertising is not salesmanship in a strict sense. Still the advertisement writer necessarily follows the same method of appeal used by the salesman. He seeks to secure favorable attention; to develop that favorable attention into interest; to arouse desire from interest; and to induce action from desire. These stages of mind precede every sale that is ever made.

A salesman may find that his prospect has already passed the first three stages and all that is necessary is to get action by showing the goods. The advertisement writer, however, appeals not to the individual, but to the multitude and he must form a complete appeal.

Many who find it necessary to write advertisements have not had the opportunity of studying ad writing. For the benefit of such, we offer this treatise on the science of advertisement writing, and hope it may prove helpful to some.

YOU can secure *favorable attention* for your advertisement by attractive illustration; by using bold type, italics, underlining; by exceptional quality of arrangement; by an impression of life or action. Be careful not to put too much bold type, italics and underlining into the same ad. Too many attention-getters confuse the reader and defeat their purpose. *Attention* in the advertisement of Slidetite Garage Door Hardware on page 7, reprinted from September 29th issue of Country Gentleman is secured through —

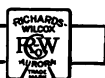
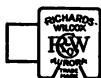
1. The picture, which attractively presents Slidetite Hardware in actual use.

2. The white space indention around the advertisement, which sets this ad off from other matter on the page — makes it “stand out.”

3. The harmonious arrangement of type — all the type in the body of the advertisement being the same style, although some is narrow, some light-faced and some bold-faced.

.. . . .

Sometimes it is better to remain silent, though doubted, than to speak and remove all doubt



4. The script lettering and euphonious novelty of the word Slidetite (slide tight).

The attention thus secured will likely be favorable because the impression made by the style and arrangement of type is pleasing, the illustration is attractive and the wording of the type matter such that the reader will not find any offense therein.

CONVERT *attention into interest* by making it clear the reader needs or wants what you have to sell. Interest in the Slidetite Hardware advertisement is sought by the catch-line, "First in Economy; First in Convenience; First in Architectural Beauty of Entrance;" the description, and the illustration.

If the reader has an automobile he is interested in garage door hardware, and the picture of an automobile and garage doorway would likely catch his thought. The type at the beginning of the advertisement tends to foster this interest.

Create desire from interest by so describing and illustrating your goods and service that the customer is convinced he will secure greater value by purchasing from you. Desire to own Slidetite Hardware should come as a result of the illustration and description in the Slidetite advertisement, which make clear the advantages to be secured through its possession.

Get action from desire by some incentive such as an offer to give him information or demonstration, free trial for ten days, money cheerfully refunded, etc. The Slidetite ad contains incentive to action in the suggestion that Slidetite can readily be secured at the hardware store and that a book of value to garage builders can be had without obligation.

IT IS well to give the price at the bottom of your advertisement or a statement that the article embodies exceptional value at a reasonable cost. The firm name appears at the bottom of the ad ordinarily speaking, although some retail advertisements are written with the firm name at the top. This is not good policy, however, unless the firm name is so popular that it is sure to attract attention and gives the reader a strong favorable impression.

Position, space, drawings, cuts, type, borders, etc., are matters which depend on individual conditions. The writer will be glad to answer to the best of his ability inquiries which readers of

♦ ♦ ♦

Mistakes will happen—that's why communities have jails



DOOR-WAYS



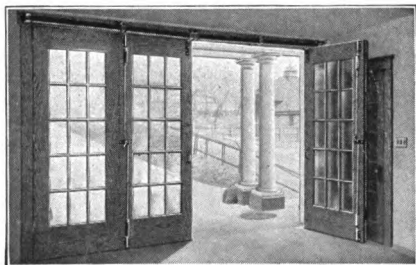
Door-Ways may care to send him regarding particular cases. Such inquiries should be addressed, Advertising Manager, Richards-Wilcox Manufacturing Co., Aurora, Illinois.

SIMPLICITY is a highly important factor. Your advertisement should cover one idea only. It should be so plain that one reading gives the entire thought.

Truth is the substance of effective advertising. No merchant can afford to misrepresent his products. He will find plenty of valuable features which he can present to prospective customers without exaggeration.

Put into your advertisements the best talent you possess. Write your advertisements early in the morning when your mind is quick and free from the mass of details which later in the day crowd each other for a place in your thoughts.

Slidetite (Patented) Garage Door Hardware



**First in Economy—
First in Convenience—
First in Architectural Beauty of Entrance**

Saves heat. Saves space. Saves damage. Doors can't sag, can't hang in the wind, can't jump the track. Slidetite hardware gives opportunity for use of distinctive garage doors. Takes away that barn-door effect. Adapted to any garage

Sold by the Best Hardware Dealers Everywhere

**Write for booklet, "Distinctive Garage Door Equipment"
Sent without obligation**

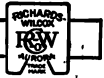
Richards-Wilcox Manufacturing Co.

SAN FRANCISCO
LOS ANGELES
NEW YORK
CHICAGO

AURORA, ILLINOIS, U.S.A.

Richards-Wilcox Canadian Co. Ltd. London, Ont.
"A hanger for any door that slides"

PHILADELPHIA
MINNEAPOLIS
BOSTON
ST. LOUIS



Pride of Achievement

"Thou shalt not fail to blow thine own horn, for he who faileth to blow his own horn on proper occasion findeth nobody standing ready to blow it for him."



MODESTY has deterred us from throwing the spotlight on notable Richards-Wilcox achievements in the past and we are still of the persuasion that nobody appreciates a whirlwind the more because it does its own blowing.

However, we have been quietly working away for nearly half a century under a firm determination to produce the best door hangers possible for any door that slides and it has recently been impressed on us that we owe it to the public to bring to their particular attention R-W achievements of special interest to them.

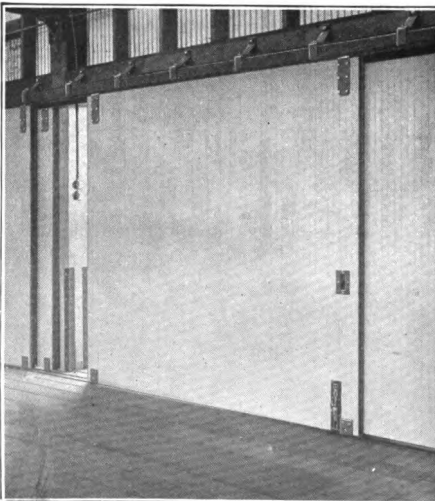
The Richards-Wilcox Manufacturing Company makes the *largest and most complete line in the world* of hardware for sliding doors.

The Ideal line of Elevator Door Hangers, Automatic Closers and Locks is *unsurpassed for effective service, smooth and silent operation.*

The Richards-Wilcox line of Automatic Fire Door Hardware is the *most extensive and complete manufactured.* The effectiveness of Automatic Fire Door Hardware depends upon the sensitiveness of the fusible link. The Richards-Wilcox fusible link was perfected at great cost and effort. It is so accurately constituted that a number of these links, picked from stock at random and suspended in a gradually rising temperature, will break within five seconds of each other when the temperature reaches 160 degrees.

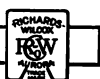
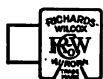
Richards-Wilcox Sliding Garage Door Hardware is acknowledged *peerless in its realm.*

And we can prove it.



Ten Tons of Parallel Sliding Door Hardware

THE Denver and Rio Grande Railroad recently purchased Richards-Wilcox Sliding Door Hardware for 1,000 feet of 2- $\frac{3}{8}$ " parallel doors to be installed in their freight house at Salt Lake City. The shipment consisted of parallel track, brackets, hangers, adjustable locking bolts, etc., and weighed 20,000 pounds.



War Facts

Every American soldier has a small metal tag suspended by a cord around his neck giving complete information necessary for his identification.

• • •

Australia raised 160,000,000 surplus bushels of wheat for export this year. This unprecedented crop will help to relieve America's burden of providing food for her Allies.

• • •

The United States is the only Nation of the Allies capable of supporting its own people. The American farmer has been providing a living for three families. Now he must make a living for twelve families or someone will go hungry. Starving soldiers can't fight and famished individuals can't work. Our part is to conserve the abundance with which Nature has blessed the efforts of the American farmer.

• • •

Eat cheese. It is highly nutritious and eating it will help to win the war, because it will take the place of meat and wheat which our Allies require.

• • •

It takes six men at home to provide one soldier on the battle front with the means of life and of death.

• • •

The average American consumes five pounds of wheat flour per week. If each one reduces his portion to four pounds per week, there will be enough wheat for all.

• • •

Before the war, England secured most of her sugar from what are now enemy countries. Now we must share our sugar with her. By economizing we can fill her need.

• • •

When the war began England possessed twenty million rounds of small arms ammunition; Germany possessed *four thousand* million rounds.

• • •

The average life of a rifle in the war is not more than six weeks.



How Soldiers are Made

The letters printed below were received from Messrs. Fred Weiss and James Putty, employed before the war at the main office of the Richards-Wilcox Co., Aurora, Ill. They contain interesting description of camp life in the training stations.

CAMP GRANT, ILLINOIS.

MR. F. C. WEST AND OFFICE FORCE.

Dear Friends:

I RECEIVED your letter in regard to photograph and will send it as soon as I get my complete uniform. We are not allowed to leave camp unless we have a complete uniform, shoes shined, etc.

I thought I would write a few lines for the benefit of you and others who might be interested. We must arise at 5:45 A. M., when the bugle calls "Revielle," (no extra nap). Then line up for roll call, and exercise 'till 6:15 A. M., we then line up for breakfast at 6:30 A. M., the room must then be swept, beds made, dishes washed, the yard must also be cleaned up. This is called policeing. Start drilling at 7:30 A. M. Drill 'till 11:30 A. M., back from the drill grounds to line up for mess. Then drill and exercise from 1:05 P. M. 'till 4:15 P. M., which closes our drilling for the day.

THE guards are "mounted" at 4:30 P. M., and are on duty for twenty-four hours, pacing two hours and resting four hours. We all take turns at this as soon as we get our uniforms. Five P. M. is supper time and "Retreat" at 5:30 P. M., when every person in the army must stand at attention while the band plays "The Star Spangled Banner." The lights go out at 9:00 P. M., but we can stay up 'till 11:00 P. M., providing we take our shoes off on entering our "hotel". We have all gone to bed at 9:00 P. M. for eight nights straight. It's the first time it has occurred since we were "knee high to a grasshopper."

The eats are fairly good. Today (Sunday) the Captain treated our Company to a chicken dinner and ice cream, peas, mashed potatoes, bread, butter and soup. We have the best Captain in Camp Grant, his name is Troxel. For breakfast the menu consists of oatmeal mush, fried potatoes, liver or beaf and bread, no butter, and black coffee always. We are allowed to get two or three helpings as desired.

Every window must be opened at night. Friday night is wash night, generally, as Saturday morning is inspection of all articles furnished by the U. S. Only answering Revielle and Retreat on Sunday are required. No drill Saturday afternoon.

THE Y. M. C. A. do fine work here. They have five buildings. Each one seats 300 or more persons. At each of these buildings is a piano, victrola, books, fireplace and writing tables, and paper and envelopes. The K. of C.'s are building similar places like the Y. M. C. A. They are all non-sectarian. The K. of C.'s and Y. M. C. A. are working in harmony.

There are a number of our Company going to France, and some to Fort Logan, Texas, this week. They are going "over" to get things ready for us soon. I don't think we will be here much after "Thanksgiving Day."

We all must take up boxing here so as to get expert with the bayonet. They are now practicing on dummy sacks of sawdust, (a pleasant job). I received Mr. Fitch's letter for which I am grateful.

I must close now. My remembrances to all, I remain,

FRED WEISS.





DOOR-WAYS



MR. F. C. WEST, Advertising Manager, Richards-Wilcox Mfg. Co.,
Aurora, Illinois.

Dear Sir:

Yours of the 10th at hand. It is one happy thought to know I am in the service and another to know those I left behind have not forgotten me. As for camp life, of course it's a great change and, while we miss a few luxuries that were had at home, we get training here that will do good to any young man that will go through it.

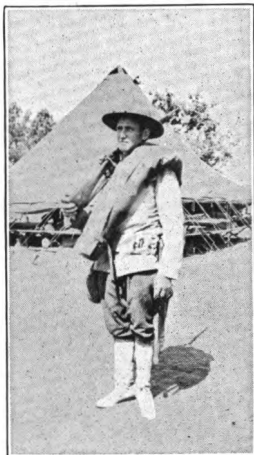
We took a trip to Galveston Sunday, and after feeding (for we sure got an appetite), we drove down around the warehouses. As a former employe of Richards-Wilcox, the first thing that I noticed was R-W Trolley Track on the big elevators. I remarked to the other boys, "Wherever you go you will always find R-W well represented." We sure had a time in the surf and arrived in camp about eleven bells. I enclose photo as requested.

Yours truly,

JAMES G. PUTTY,

Co. D, 129 U. S. Infantry.

Camp Logan, Houston, Texas.



Out on the Farm

THE accompanying cut shows that the Boss of the Richards-Wilcox Manufacturing Company, Mr. W. H. Fitch, is doing his level best to help feed the Allies. This photograph was taken on his farm near Aurora, Ill.

The Boss insists that "pigs is pigs," but from the satisfied expression on his face we believe he agrees with us that this bunch will make exceptionally good eating.

These plump porkers were shipped to market the day the picture was taken, and before this article is read will undoubtedly have done their bit toward helping to win the war. Some of them weighed 400 pounds. They were acknowledged to be the finest hogs in the U. S. Yards the day they were sold.



Quick Turnover

CARLISLE & Bristol, hardware merchants at Fargo, North Dakota, this fall carried out a campaign in connection with the window display illustrated in the cut below, which proved eminently successful.

With a large model of Slidetite Garage Door Hardware as the center, they arranged open boxes of garage door hangers, trolley track and other garage hardware around ornamental signs, booklets and pictures in an attractive display in their window. At the same time they sent out personal letters to



architects, carpenters and contractors of Fargo and other towns in that locality, calling attention to some of the advantages embodied in Slidetite Garage Door Hardware and invited them to call in and see it demonstrated. In this way they aroused so much interest that the weekly sales on Slidetite more than doubled. Their letter follows:

"Your mounted sample Garage Trim was a great help in demonstrating and selling Richards-Wilcox Garage Door Fixtures. Before the mounted sample arrived we had been selling one or two garage door sets a week, but when the sample came, the sales more than doubled. We had it displayed in our window for a week, then we placed it in the front part of the store where it received considerable attention and favorable comment. It helped us clean out our stock in a hurry."

Users Boosters

October 12, 1917.

"We have used your garage hardware on several jobs and find it very satisfactory. Please send us a catalog and oblige,

"Yours truly,

"KUNKEL & FORSBERG,

"11322 Prairie Ave., Chicago, Illinois."

October 10, 1917.

"We have now used our Richards-Wilcox Slidetite Doors and Electric Operator ten days, and are absolutely satisfied with same.

"MOTOR SALES CORP.,

"Lisbon, North Dakota.

"BY A. HANGE, Mgr."



Free Want Ad Section

This space is reserved for you. Your ad may carry your address or we will key it and forward all replies promptly.

Our publications reach 28,000 hardware and implement dealers, architects, contractors and builders.

Businesses change hands and proprietors find just the man they want through these columns. Send in your ad. We will publish it in three consecutive issues without charge. When you get desired results before the third issue, kindly advise us so we may put a new ad in your space. Our forms close the fifth of month preceding date of issue.

FOR SALE — One 400-account McCaskey System good as new, for \$150.00. Worth double. Also one 100-account for \$40.00. Address, Nicholas Hardware Co., Oak Park, Ill.

FOR SALE — DeKalb Special Hardware Delivery Wagon with shafts, 11¼-inch steel tires. In good condition. Used only three years. Now using motor truck. Will trade for merchandise. Address, Charles A. Hall Hdw. Co., Urbana, Ill.

FOR SALE — \$3,000.00 stock of hardware and stoves, plumbing and tin shop, in a good live, Iowa town. Two-story fire-proof building 25x70 on two lots. Also good windmill business — the only one in town selling mills. A good place for the right man. Will sell right if taken soon. Address, H. L. M., care Door-Ways.

FOR SALE — To manufacturers on a royalty basis, or patent sold outright. Automatic Casement Window Adjuster and Lock. The best in the United States. Easy to make at low cost. Simple and strong in construction. Never fails to sell and satisfy. Small capital will put it on the market. Operates through inside screen when sash swings outwardly. Good terms to those who mean business. Address, M. T. S., care Door-Ways.

FOR SALE — Hardware business invoicing \$12,000. Annual sales \$40,000. Must sacrifice because of poor health. Address, E. M. A., care Door-Ways.

WILL SELL OR EXCHANGE for a Visigraph Typewriter or what, one Rochester Optical Co. 6½"x8½" Camera, having a Rapid Perigraphic lens fitted with a B & L diaphragm shutter, tripod, three plate holders, carrying case, etc.; a complete outfit. Ed. L. Davis, Architect, Davis Building, Schenectady, N. Y.

The Cheerful Grin

Smile and the world smiles with you,
Kick, and you kick alone.

For the cheerful grin

Will let you in,

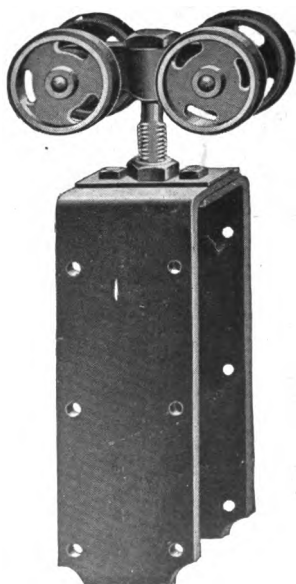
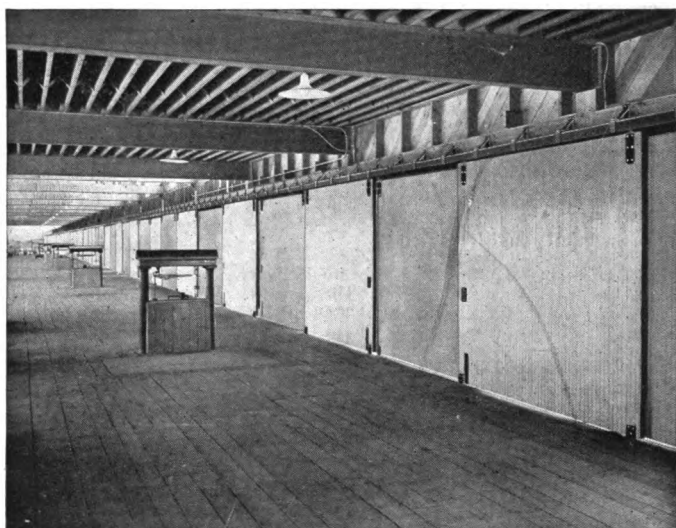
Where the kicker is never known.

Slidetite Sells Itself

During the past eight months, in a western town of 11,000 people, thirty sets of Slidetite Garage Door Hardware were installed — another instance of the fact that one Slidetite installation in a town will sell many others.

Richards-Wilcox Hardware

for Parallel Warehouse, Freight-house & Wharf Doors



Does away with the necessity for "spotting" cars or trucks.

Keeps out the cold wind, rain and snow.

Operates easily. Requires no floor space in warehouse for operation.

Made to carry any weight of door up to 1,000 pounds.

May be attached to side wall or ceiling as conditions require.

Accessible adjustments in hanger and track take care of settling walls. Ball bearings make hanger roll easily. Metal weather strip between doors keeps out the weather.

See Pages 71-82 of No. 12
Richards-Wilcox Catalog



Richards-Wilcox Manufacturing Co.

SAN FRANCISCO
LOS ANGELES
NEW YORK
CHICAGO

AURORA, ILLINOIS, U.S.A.

Richards-Wilcox Canadian Co., Ltd. London, Ont.

"A hanger for any door that slides"

PHILADELPHIA
MINNEAPOLIS
BOSTON
ST. LOUIS

This book is under no circumstances to be taken from the Building

[illegible]

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APR - 8 1919

